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The Massachusetts Medical Society

THE PRESIDENT'S ADDRESS*

BY WILLIAM H. ROBEY, M.D.†

THE Massachusetts Medical Society founded in 1781, is the oldest medical society in the United States with a record of uninterrupted meetings from its founding to the present time. Although the Medical Society of New Jersey began its existence fifteen years earlier, it held no meetings from 1775 to 1781 and again suspended them during the twelve years from 1795 to 1807 so that its continuous existence may be said to date from 1807 and not from 1766. The Massachusetts Medical Society is however enjoying the one hundred and fifty-fourth year of continuous activity. Certain state medical societies are somewhat overshadowed by other medical organizations within their midst but the Massachusetts Medical Society stands upon the highest plane in our Commonwealth, an effective influence not only upon its members but upon the community at large. Many brilliant Fellows have added to its reputation and all ambitious physicians within the state desire the distinction of membership and often retain it even when holding residence elsewhere. Its officers, committeemen, and Fellows are keenly interested in the type of physicians admitted and seek to maintain its high standards at all times. Any step which tends to lower its eminence or to dull its prestige is unthinkable, and therefore the prospective Fellow must be viewed critically.

The Massachusetts Medical Society is at liberty to make its own requirements for fellowship. The Society has established a criterion in educational and technical training which it intends to maintain and it will continue to persevere in upholding that high standard. Applicants from Class A schools are at once accepted for examination by the censors upon graduation, as in most cases they should be, while applicants from schools of lesser standing are accepted after five years of practice, upon the approval of the censors of the particular district in which they reside, and the approval of the Committee on Medical Education and Medical Diplomas, and upon passing the examination by the Society, as is the case of all graduates except those who have already passed the National Board of Medical Examiners. The question has repeatedly been asked, "What type is eligible for membership?" To this there can be no cut and dried answer—adequate professional training is a prerequisite but since our medical school curricula cannot include courses in common sense, sound judgment, good manners, a knowledge of human nature and some breadth of outlook, we in the Society should require our constituency to measure up to better standards in these essential qualifications than has sometimes been the case in weighing the fitness of a candidate. There can be no doubt that a more careful sifting process would mark a distinct step in advance, and therefore a great responsibility rests on the censors of the district societies who are chosen to conduct the examination of applicants for admission to fellowship. Before 1852 any respectable practitioner who had been in practice not less than fifteen years might be admitted a Fellow by the district medical society where he resided, by a two-thirds vote of the members present at a stated meeting, but in 1860 the following provision (passed by the Legislature in 1859) was accepted and incorporated in the by-laws: "No person shall hereafter become a member of the Massachusetts Medical Society except upon examination by the censors of said Society, and any person of good moral character found to possess the qualifications prescribed by the rules and regulations of said Society shall be admitted a Fellow of said Society." At that time the graduates of two medical schools were admitted as they had been for many years without examination, and this practice did not cease until 1870 when the clause was deleted. Now any doctor of medicine who has proved his worth to the community as an honorable practitioner may, after varying terms of service, be eligible for fellowship in the Massachusetts Medical Society. The censors should be men of discrimination and should take their duties seriously; they should know something of the applicant's background, his character, his relation to his fellow practitioners and his patients, as well as his ability to answer the questions on the examination paper. Those appli-

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†Robey, William H.—Clinical Professor of Medicine Emeritus, Harvard University. For record and address of author see "This Week's Issue," page 40.

cants who come under the five-year practice clause must be referred to the Committee on Medical Education and Medical Diplomas, and this Committee should have the power to review the applicant's qualifications and to give him such additional medical examination as it thinks necessary.

The President has been deeply impressed with the various committees—their efforts to preserve or to raise the standards of the Massachusetts Medical Society are unquestioned. Attendance at almost all committee meetings is of high average, many members traveling long distances, often without remuneration and at considerable personal loss, to further the affairs of the Society. If some of the committees are not hereafter mentioned it is because of insufficient time to give a résumé of all departments, not because any one omitted is lacking in excellence of achievement.

A new committee which has attracted widespread attention is that in charge of Post-Graduate Instruction. Throughout the years of its long life the Massachusetts Medical Society has done much of primary importance for group medicine in its broadest sense, working for the best type of medical practice, for the protection of the physician and the laity against fraud and deceit, and for instruction in its district and annual meetings. Until recent years it has not so actively assisted physicians in their individual problems. One of the first pieces of service rendered was the establishment of group insurance against blackmail and alleged malpractice. Postgraduate instruction by state medical societies is not new, and has been satisfactory in the areas where it has been tried. The success of our committee in its one year of activity has exceeded our expectations and has attracted widespread interest. The Council has just petitioned the Society to permit a continuance of instruction in the season of 1934-35. The courses were available to 4300 of our nearly 5000 members, and of these about one-fourth enrolled. Various means have been considered for increasing attendance another year. One plan was to add two dollars to the dues of every fellow, thus ensuring a substantial sum capable of caring for all expenses and providing a fee for each instructor. There were several objections to such a plan. Many could not take the course under any conditions, and in view of the present economic distress it would be unfair to add to their burdens. Again it was felt that a fee of five dollars for each participant was reasonable and made him eager to secure value in return for the outlay, a natural stimulus to his interest in the work. Such a small sum would be but a slight burden upon each student provided he got what he required. The best way to maintain the student's attention is to make the instruction vital, to give him something which he can actually use in the daily routine of his practice. The chief criticism of the course by the students was that some of the instructors lectured as they would to a class of medical school undergraduates, and while the instructor may have told them some things which they did not know or some which they had forgotten, it was all too elementary to be of practical value. Those of us who have taught undergraduates and graduates know that there is a great difference in the method of attack. The practitioner student wants a clear and concise presentation of improved methods of diagnosis and differential diagnosis, with the latest developments in treatment, so that what he learns in the lecture room may be put to practical use at the bedside of the patient; he does not welcome the rudimentary or the merely theoretical. But considering the speed with which the course was initiated and organized, it has had a remarkable fruition. The secretary of the committee has had occasional difficulty in arranging schedules, finding it necessary at times to move the instructors about like chessmen, but his work has been admirable and deserves our heartiest praise. The instructors have responded with great willingness, and while an occasional engagement has been broken the secretary with great energy supplied a substitute and the appointment was kept. It should be remembered that so far instructors have received only their mileage, nothing to compensate them for loss of time. Now that the plans for instruction have been more nearly perfected, greater attention will be paid to the type of material offered and to its manner of presentation.

Numerous meetings have been held by the Committee on Public Relations and its subcommittee and many problems have been considered, but little has so far been definitely accomplished. This is not entirely the fault of the committee, since it has had to combat almost insuperable difficulties. Many large organizations similar to ours have such a committee, and if there is an interchange of ideas, it may later prove to be mutually helpful. In the matter of Industrial Insurance the committee and the insurance representatives have reached a stalemate which probably will continue until there is some definite change in the industrial insurance laws. It was related by the President at the February meeting of the Council that the committee attempted to induce the Civil Works Administration to permit physicians to attend their injured and sick patients in the employ of the Administration instead of using the board of three or four physicians appointed by the Federal Act of 1916. At first the Federal Government demurred, claiming the right to employ only such physicians as it thought proper, but later the CWA counsel for Massachusetts announced that physicians might attend their

patients who were employed under the CWA and might send their reports to Washington. We have heard that some physicians have sent the necessary papers, but in only a few instances has payment been made. We have been urged to make the Committee on Public Relations a standing committee. A great deal of the planning has been done by its subcommittee, after which its recommendations are presented to the large committee but its final deliberations must receive the approval of the Council. If it becomes a standing committee it will have to be reduced to the usual number of five members. The Fellows will have to be representative men or women from various sections of the state and will have to be selected with great care. It has been suggested that since many of its problems deal with Public Health that it might be advantageous to combine the Committee on Public Relations with the Committee on Public Health under a comprehensive title. Everyone who has to do with organizations knows that too many committees clog their mechanism and that small committees are usually more effective than large ones. As Chairman of the Committee, I may say that I strongly favor its being made a Standing Committee and heartily recommend it. The committee is comprised at present of eighteen representatives, one from each district society, and it is claimed by the advocates of the large committee that the interests of the constituent societies can be expressed and preserved more satisfactorily by direct representation. I am in accord with any plan which gives each district a direct and equal voice in the affairs of the society provided the plan can be made workable. There is, however, complete representation of all districts in the Council and therefore it is as well qualified to pass upon the deliberations of a standing committee as is the present Committee on Public Relations to decide upon the proposals of its subcommittee. The Council accepts or rejects the decisions of our present standing committees when their reports are presented and it would do the same for a standing Committee on Public Relations. Whether we shall change the Committee on Public Relations into a standing committee rests with the Council after it has had an opportunity to give full consideration to the problem.

The question of the medical care of the indigent sick has been given serious consideration by the officers of the Society. Our status up to the time of the February meeting of the Council was carefully reviewed and published in the *Journal* and need not be repeated. The doctors of Massachusetts and some other states, as they viewed various industries being placed under the Code, felt and expressed their satisfaction that medicine was to continue without a code. It was difficult to see how a code could be made applicable to the ramifications of medical practice and, again, governmental control of medicine was obnoxious to its members. We have not been put under a code and, indeed, in Massachusetts, we have not been put under anything, but we continue to function under the old and always persisting obligation felt by all conscientious doctors, to attend the sick whether they can pay for medical services or not. In prosperous times the doctor had enough paying patients to enable him to live and still care for the poor, but with the lessened means of the former and the increase in the latter his livelihood is seriously threatened. In Greater Boston rumor at one time placed the number of physicians on the Family Welfare list as high as eighty, but careful inquiry has shown that not more than two or three have applied to that organization for aid. Those physicians dealing almost entirely with foreigners have suffered most acutely. Three have appealed to your President for some additional work or for a position elsewhere in the State. While probably very few physicians in the Commonwealth have sought welfare aid, doubtless a considerable number are living on a very narrow margin. At present the Federal government is not assisting the indigent sick of Massachusetts, and the money which was allotted last November was used instead for the reduction of taxes in towns and cities. The State is not making it possible for the doctor to be paid for the care of the indigent, and on the other hand the large hospitals in cities are doubtless receiving many patients on a charity basis who could well afford to pay for the services of a physician. With the formation of the ERA it looked as though funds would be available from the Federal government for the medical care of those unable to pay. The allotment of money, however, must go entirely for payrolls with strict limitations of hours of work. In case of sickness or in order to meet the budgetary requirements of his family, a worker, if his wages are insufficient, must apply to the Welfare Board for aid. In New Hampshire the problem appears to be more satisfactorily managed; there the relief of the sick poor is under the authority of a legislative act which removes the responsibility from town or county officers and places it entirely in the control of the Governor. The primary object of this step was to free such medical care from the hampering influence of politics. There is a Director of Relief who has supervision of investigators and social workers who decide what cases shall go on relief. As in most new ventures the administration has been confused and unsatisfactory, but various difficulties are being surmounted and it is hoped that in a reasonable time it will function properly. The sick poor may choose their own physicians and are re-

lieved thereby from being placed under the lowest bidder for medical treatment. Emergency cases are cared for without waiting for authorization, investigation being made in due course. Hospitalization is obtained when necessary and in the event of a closed staff the patient's own physician surrenders the case to the visiting physician or surgeon in charge of the ward who may render a bill for his services. A generous fee-table is in use allowing a maximum of one hundred dollars for any case of illness or accident exclusive of mileage. Most of the members of the New Hampshire Medical Society have coöperated well but a few have seemed to think that every case demanded a hundred dollars' worth of treatment, and to correct these abuses, which would soon exhaust the funds before additions could be made, a committee from the Medical Society has been appointed to coöperate with the Director of Relief. The bills are paid one-fourth by the town, one-fourth by the Federal government and one-half by the state. The expense of operation is paid, one-third by the Federal government and two-thirds by the state, and it is hoped that in time the high cost caused by the employment of many new social workers and an army of clerks will be reduced. The legislature stipulated that the existing agencies be used, but this has been neglected. In contradistinction, The Bedford County Medical Society of Pennsylvania has petitioned the delegates to the June meeting of the American Medical Association, to ask that body to pass a resolution whereby its members and those of its component organizations shall refuse to accept pay on medical relief orders issued by the state or Federal government. From that viewpoint it is more desirable to continue to care for the indigent sick as in normal times, and by declining government aid during an economic emergency, avoid the possibility of being controlled by state medicine.

Massachusetts as we all know still cares for the indigent sick as in prosperous times, so the pressing question arises whether we should take more active steps to obtain Federal aid or whether we should continue the status quo. The two divergent points of view present one more proof of the increasing complexity of the social and economic problems which directly affect the medical profession and therefore we, individually as well as collectively, should give more intelligent consideration to their solution. Our Council must devise plans during the next year which will give the public the type of medical service it needs and to which it is entitled, and which, at the same time, will enable our profession to maintain its self-respect and assure its members a livelihood. In addition to the two methods stated above, I should like to suggest a careful study of the National Health Insurance Acts which are reported to be working with great success in England.

The Committee of Arrangements has put much time, work and enthusiasm into its planning for this meeting, and I am sure you will all heartily agree that their efforts have been unusually successful. The chairman of our committee and the local chairman have had numerous conferences and the admirable results are evident. The Scientific Exhibit continues to be an outstanding feature and is increasing in importance every year. We are particularly indebted to the Committee of Ladies for their entertainment of visiting ladies; and to our hosts of the Worcester District Medical Society, I wish to express the sincere gratitude of the Massachusetts Medical Society for the generous hospitality that has been extended.

My thanks are due to you all for the privilege of service during this year and for the opportunity of learning to appreciate more fully the value and importance of the Massachusetts Medical Society.

PROCEEDINGS OF THE SOCIETY

First Day, June 4, 1934

THE one hundred and fifty-third anniversary was observed in Worcester, Monday, Tuesday and Wednesday, June 4, 5, and 6, 1934.

On Monday morning clinics were held at the chief hospitals of the city that were much enjoyed by the visiting Fellows, while at the Hotel Bancroft, the headquarters of the Society, there were twelve scientific exhibits and thirty-five commercial exhibits.

An enterprising Local Committee of Arrangements had arranged a full program for the entertainment of the visiting women for both Monday and Tuesday, including visits in buses to the chief points of interest in Worcester and vicinity, luncheons at the Tatnuck and Worcester Country Clubs and a visit to the noted garden of Dr. and Mrs. Homer Gage in Shrewsbury.

During the afternoon the Sections of Pediatrics, and Radiology and Physiotherapy held their meetings in the Hotel Bancroft with an attendance of 110 and 150 respectively. The Shattuck Lecture was given in the evening in the Ballroom by Dr. Warfield T. Longcope of Baltimore, Physician-in-Chief at the Johns Hopkins Hospital, to an audience of 220 persons. The galleries of the ballroom were reserved for the ladies and light refreshments were served

at the close of the lecture. (For the lecture, with illustrations, under the title of *The Importance of Disturbances in Nutrition in Edematous States*, see the *New England Journal of Medicine*, issue of June 14, 1934, pages 1243-1250.)

Second Day, June 5, 1934

In the morning the Section of Surgery held its meeting in the Chamber of Commerce Hall adjoining the Bancroft with an attendance of 250.

At 11:30 o'clock the Supervising Censors met in the Ballroom for their annual meeting and transacted the customary business. At noon the Council was called to order by the President in the same room, 156 Councilors being present. (For the Proceedings of the Council see the *New England Journal of Medicine*, issue of June 28, 1934, pages 1355-1372.)

The Section of Medicine held its meeting in the Chamber of Commerce Hall during the afternoon with an attendance of 300.

Tuesday evening the annual dinner was served in the Ballroom to 203 Fellows and guests. The President, acting as Anniversary Chairman, introduced His Honor, John C. Mahoney, Mayor of Worcester, who welcomed the Society to the city in a brief speech. The Hon. James M. Morton, Jr., Judge of the United States Court of Appeals, represented the legal profession in a well accepted speech, and the Right Reverend Henry K. Sherrill, D.D., Episcopal Bishop of the Eastern Diocese of Massachusetts, brought greetings from the clergy and paid a glowing tribute to the medical profession, having been closely associated with physicians in his work at Base Hospital No. 6 during the World War and as a Trustee of the Massachusetts General Hospital in Boston.

The speaking was brought to a close by Dr. Lewis Perry, Headmaster of Phillips Exeter Academy, who told some of his inimitably witty stories, and paid tribute to the earnest and ambitious spirit of the young people of to-day in our institutions of learning as he had observed it.

Third Day, June 6, 1934

The Sections of Obstetrics and Gynecology, and of Tuberculosis held their meetings Wednesday morning with attendances of 315 and 108 respectively. At noon the Annual Meeting of the Massachusetts Medical Society was called to order by the President in the Ballroom. The minutes of the last meeting were read by the Secretary, and approved.

The Secretary read the following statistics as to membership:

Membership, June 7, 1933		4866
Lost by		
Death	99	
Resignation	25	
Deprivation	32	
Net loss	156	156
		4710
Gained by		
New Fellows	231	
Readmitted by Censors	1	
Restored by Council	9	
Net gain	241	241
Membership, June 6, 1934		4951

The President spoke on the state of the Society and on motion by Dr. S. B. Woodward was voted the thanks of the Society. (For the President's address see the *New England Journal of Medicine*, issue of July 5, 1934, pages 1-4.)

Dr. Dwight O'Hara presented the following preambles and resolutions as to opposing the exploitation of certain drugs, remedies, and preparations over the radio, and they were passed without dissent.

RESOLUTIONS OPPOSING THE EXPLOITATION OF CERTAIN DRUGS, REMEDIES, AND PREPARATIONS OVER THE RADIO

Whereas, The Health of the citizens of the United States constitutes the greatest asset of the Nation, and the responsibility of conserving the health of the citizens and restoring them to health in times of illness reposes in the Medical Profession, and,

Whereas, This responsibility is very great, as is evidenced by the high educational and professional standards which physicians are required to meet in the various States of the Union before being permitted to diagnose disease and treat the sick, and,

Whereas, Satisfactory and safe service of this type can only be rendered after a long and careful study of the causes and symptoms of disease, and that these causes and symptoms can only be determined after an interview with and physical examinations of the patient, and,

Whereas, No rational or safe treatment can be decided upon and carried out under circumstances other than those above set forth without danger to the life or health of the patient, and,

Whereas, For many months past the Radio Broadcasting Companies of the United States have through their various broadcasting stations permitted the exploitation of many drugs, preparations, patent medicines and so-called cures, to the radio audiences of America, and,

Whereas, It has been well established that some of the drugs, preparations and patent medicines so exploited are dangerous in the hands of the layman; others are of doubtful value, and in practically all instances their value for the relief of the symptoms and conditions for which recommended have been overstated and are misleading to the public, and,

Whereas, The symptoms and conditions for which these drugs, preparations and patent medicines are recommended may be, and frequently are, indications of serious conditions calling for careful study on the part of a well-qualified physi-

cian in order that a correct diagnosis may be made, and the proper treatment instituted before the disease reaches an advanced stage, and,

Whereas, Radio broadcasting is under the control of the Federal Radio Commission, and the radio is being used to broadcast non-supportable claims and statements regarding a large number of drugs and preparations for the treatment of human ailments:

Therefore, Be It Resolved, That the Massachusetts Medical Society is opposed to the advertising, recommending or in any way exploiting over the radio any preparations, remedies, medicines or appliances for the treatment of human ailments; and that a copy of these Resolutions be forwarded to the Senators and Representatives in Congress of the State of Massachusetts with the request that they use their influence in strengthening the powers of the Federal Radio Commission to discontinue such advertising over the radio.

Be It Further Resolved, That physicians use such influence with their patients and with the public as may be necessary to secure their coöperation in sending protests to the Federal Radio Commission and to Broadcasting Stations against misleading and unwarranted medical advertising.

Dr. Karl Tristram Phillips of Putnam, Connecticut, brought greetings from that State and said he hoped that the Fellows of our Society would attend the Clinical Congress of the Connecticut State Medical Society next fall. Dr. Frank J. McQuade of Franklin, New Hampshire, brought the good wishes of that Society. Dr. J. A. Wark of Barre, Vermont, was present during the meetings as a delegate from the Vermont State Medical Society.

The Revised By-Laws, as approved by the Council, June 5, 1934, were submitted to the meeting and on motion, duly made and seconded, were adopted by unanimous vote; on similar motion the By-Laws of 1928 were rescinded.

At one o'clock Dr. Lincoln Davis, President of the Boston Medical Library, Consulting Surgeon, Massachusetts General Hospital, delivered the annual discourse with the title: *The Objectives of Medical Progress*. (For the address see the *New England Journal of Medicine*, issue of June 7, 1934, pages 1197-1204.) A vote of thanks was accorded the orator for his interesting discourse, and the Society adjourned *sine die*. Luncheon was served to all in attendance in the Chamber of Commerce Hall at two o'clock.

WALTER L. BURRAGE, *Secretary*.

The total registered attendance at the three-day meeting was 847. The attendance at each of the Section meetings and the officers elected for 1935 follow:

SECTION OF MEDICINE. Attendance, 300
Chairman, Francis M. Rackemann, Boston
Secretary, Richard P. Stetson, Chestnut Hill and Boston

SECTION OF SURGERY. Attendance, 250
Chairman, Ralph W. French, Fall River
Secretary, E. Parker Hayden, Boston

SECTION OF TUBERCULOSIS. Attendance, 108
Chairman, Donald S. King, Boston
Secretary, Olin S. Pettingill, Middleton

SECTION OF PEDIATRICS. Attendance, 110
Chairman, Joseph Garland, Boston
Secretary, James M. Baty, Belmont and Boston

SECTION OF OBSTETRICS AND GYNECOLOGY. Attendance, 315
Chairman, Thomas Almy, Fall River
Secretary, Charles J. Kickham, Brookline

SECTION OF RADIOLOGY AND PHYSIOTHERAPY. Attendance, 150
Chairman, Franklin P. Lowry, Newton.
Secretary, Philip H. Cook, Worcester

NEW SECTION OF DERMATOLOGY AND SYPHILOLOGY.
Chairman, Charles J. White, Boston
Secretary, William P. Boardman, Boston.

ADMISSIONS RECORDED FROM JUNE 7, 1933 TO JUNE 6, 1934

Year of Admission	Residence	Medical College
1934	Abrams, Archie Adam, Roxbury	21
1934	Abrams, Maurice Irving, Mattapan (Boston)	11
1933	Abramson, Julius, Cambridge	13
1933	Adams, John, Jr., Boston	11
1933	Albert, Louis, Boston	13
1934	*Allison, Richmond Woodbury, Lynn	20
1934	Alpert, Louis, Lakeville	10
1933	Altman, Isadore, North Attleborough	13
1933	*Angell, David Morrison, Peabody	6
1933	Angley, John Cole, East Bridgewater	11
1934	Annis, Sumner Bryden, Maynard	10
1933	Anshin, Marcus Moses, Lynn	42
1933	Arbetter, Joseph Daniel, Saugus	13
1933	Ardis, Emma Ruby, West Auburn	38
1934	Bailey, George Guy, Jr., New Bedford	11
1934	Baird, Perry Cossart, J. R., Brookline	11
1933	Bakst, Henry Jacob, Brighton	11
1933	Banks, Benjamin Max, Boston	11
1934	Barrett, William Grout, Boston	11
1934	*Barton, Benjamin, Everett	20
1933	Bolger, Mary Elizabeth, Worcester	13
1933	Booth, Ernest Lazarus, Boston	11
1934	*Boucher, George Joseph, Northampton	6
1934	Boyajian, Charles Jacob, Boston	10
1933	Boyd, Walter Willard, Boston	11
1934	Brown, Morton Goodwin, Brighton	11
1933	Brown, Theodore Edmund, Weston	11
1933	Brudno, James Cushing, Boston	13
1934	Buell, Martin Francis, Sudbury	13
1934	*Burrill, Clarence Dean, Framingham	20
1933	Byrne, Robert Cooper, Hatfield	15
1933	Cabitt, Henry Leo, Roxbury	13
1934	*Carriel, George Elliott, Chelmsford	6
1933	*Chaimson, Harry, Roxbury	14
1934	Chase, Lawrence Milton, North Carver	13
1933	Cheney, Dorothy Hesseltine, Newburyport	10
1934	Christie, James Dearborn, Littleton	10
1933	Clark, Richard James, Winchester	11
1933	Coffin, Susan May, Boston	10

1934 Cohen, Jerome Joseph, Worcester 12
1933 Cohen, William, Waltham 12
1934 *Colleran, John Patrick, South Deerfield 6
1934 Collins, Richard, Jr., Waltham 11
1934 Coriiss, Leland Marchant, Worcester 12
1934 Cosgriff, William James, Springfield 12
1933 Costine, Robert Alexander, West Boylston 7
1934 Councilman, Elizabeth Lydia, Newburyport 29
1933 Cramp, Arthur Leroy, Stoneham 28
1933 Cremer, Samuel Meyer, Malden 12
1933 *Cronin, Charles Burke, Leominster 6
1933 Crowley, Walter Francis, Lawrence 12
1933 Cummings, Vincent Paul, North Adams 9
1934 Curran, John Joseph, Northampton 7
1933 Davies, John Archibald V., Boston 18
1934 Dawson, Raymond John, Lynn 9
1934 Dean, Frank Wilton, Bernardston 11
1934 Decker, John Joseph, Lakeville 16
1934 DeGiacomo, Fred Louis, Cambridge 12
1934 Derow, Sidney, Brookline 10
1934 Devlin, Thomas Peter, Stoneham 12
1933 Donovan, William James, Brighton 12
1934 Dow, David Crooker, Jr., Cambridge 12
1933 *Dube, Isidore Peter, Lowell 20
1934 Duberstein, Hyman, Plymouth 12
1934 Duncombe, Alfred Leslie, Brockton 11
1933 Dunn, Paul Esmond, Gardner 10
1933 Dupre, Frederic Filie, Worcester 10
1934 Eagan, Edward Francis, Lynn 1
1934 Evarts, Helen Wardner, Cambridge (Readmitted by Censors) 18
1933 Feemster, Roy F., Brookline 18
1933 Ferrone, Joseph Daniel, Newton Centre 11
1933 Fishman, Myer, Cambridge 12
1933 *Fitzpatrick, Francis Joseph, Somerville 20
1934 Flashman, David Henry, Roxbury 11
1934 Flynn, Herbert Lawrence, Belchertown 7
1934 Flynn, Joseph Christopher, Cambridge 10
1933 Fomon, Samuel, Boston 17
1933 Foote, Thomas Herbert, Salem 12
1933 Ford, Leroy Sargent, Beverly 10
1934 Fraser, John Alexander, Somerville 12
1933 French, Edward Brendan, Everett 12
1933 Fulton, Marshall Nairne, Boston 18
1933 Gadbois, Raymond William, Worcester 10
1934 Gardner, Merrill Frank, Fairhaven 7
1933 Garfield, Stanton, Concord 11
1934 *Garland, Cornelius Nathaniel, Brookline 22
1934 Gaynor, Martin Francis, Indian Orchard 15
1934 Giannestras, Nicholas James, Roxbury 12
1933 Giller, Edward Isadore, Woburn 12
1933 Gilman, Samuel, Somerville 11
1933 *Gipstein, Benjamin Louis, Springfield 6
1934 Gitter, Joseph, Malden 12
1933 Glazer, Carl, Chelsea 12
1934 Gleason, Edward Francis, Hyannis 7
1934 Goldberg, David, New Bedford 12
1934 *Goldberg, Maurice, Lawrence 6
1933 Goldfarb, Robert Himan, Boston 12
1933 Goldstein, Max Martin, Dorchester 12
1933 Green, William Thomas, Roxbury 23
1934 Groden, Henry Edward, Boston 12
1933 Grushky, Herman Bernard, Beverly 12
1933 Gundersen, Sven Martin, Brookline 11
1934 Hagopian, Norman, Worcester 12
1933 Halsted, James Addison, Dedham 11
1934 Hare, Hugh Frederick, Brookline 11
1933 Hartshorne, Isaac, Marblehead 11
1933 Harvey, Earle Allaway, Boston 11
1933 Hedolin, Cedric Bryant, Brockton 12
1933 Henderson, Donald George, Taunton 9
1934 Hickey, Cornelius Stephen, Malden 12
1933 Hobbs, Joseph Raymond, Williamsburg 11
1934 Holland, Robert Mannix, Roslindale 12
1934 Holleran, John Henry, Boston 9
1933 Holmes, Edgar Miller, Belmont 11
1934 Houghton, Clarence Winthrop, Lakeville 10
1934 Housemann, Mildred Johanna, Baldwinsville 24
1933 Howe, Henry Forbush, Boston 11
1933 Hyde, Fritz Carleton, Dennis 38
1934 Jacobus, Kenneth William Barry, Turners Falls 12
1934 Jenkins, Ebenezer Kelley, South Hanson 11
1933 Joplin, Robert Jefferson, Brookline 11
1934 *Kaman, Heinrich, Allston 6
1934 Kaufman, Moses Ralph, Cambridge 9
1934 Kelley, Sylvester Baker, Newtonville 11
1934 Kelly, Paul Brooks, Plymouth 11
1934 Kennedy, Howard Pearson, Springfield 41
1934 Kennedy, Maurice Thomas, Hadley 19
1934 King, Marjorie Meehan, Brookline 18
1934 Kneale, Wilmer Powell, Worcester 12
1933 Koreywo, John Anthony, Worcester 8
1933 Kotarski, Alexander John, Ware 12
1934 Krohn, Stuart Elias, Brighton 9
1933 Kvaraceus, Joseph Peter, Brockton 12
1933 Lamb, Charles Alexander, Boston 25
1933 Lavine, George Robert, Worcester 27
1934 Leary, Daniel Lyons, Newburyport 19
1933 Leavitt, Benjamin, Fall River 12
1934 Leclair, Rene Bernard, Belchertown 13
1933 *Leeds, William, Malden 6
1934 Leffingwell, Harold Randall, Worcester 4
1934 Lehnherr, Earl Rudolph, Boston 11
1934 L'Esperance, Francis Anthony, Northampton 12
1934 Levin, Samuel Eli, Roxbury 11
1934 Levingston, Anne Gertrude, Boston 12
1933 Littlefield, Leland Aaron, Cambridge 9
1934 Looney, Joseph Michael, Worcester 11
1933 Mabrey, Roy Elbridge, Brookline 11
1933 MacGillivray, Donald Joseph, Dorchester 9
1934 Mallory, Tracy Burr, Boston 11
1934 Mandelstam, Benjamin William, Bridgewater 12
1934 Mangione, Bernard Joseph, Fall River 10
1933 Marks, George Aaron, Boston 11
1933 Marks, Joseph Henry, Fall River 11
1933 Maroney, John Anthony, Worcester 12
1934 Mason, John Wright, Springfield 9
1933 Matthews, Wendell Chamberlain, Shelburne Falls 12
1934 McHugh, Edward John, Holyoke 12
1934 McHugh, James Vincent, Worcester 12
1934 McKenna, John Bernard, Watertown 11
1933 McMackin, John Vinson, Malden 12
1934 McManus, Philip Joseph, Winchester 12
1933 Merrill, Dudley, Cambridge 11
1933 Merrill, Urban Howe, Lawrence 40
1934 Messenger, Harry Knowles, Roxbury 11
1933 Miles, Max Duffield, Scituate 21
1933 Miller, Ralph Bretney, Mount Herman 4
1934 Millin, Joseph, South Barre 12
1934 Moore, Fredrika, Cambridge 10
1934 Moynihan, Arthur John, Springfield 19
1933 Mueller, Werner, Boston 10
1933 Muir, Laura Helen, Roxbury 12
1934 Murray, Michael Earley, Jr., Rutland 11
1933 Musgrave, Rhoda Ursula, Northampton 26
1934 Myers, Samuel William, Roxbury 11
1933 Nadeau, Gabriel, Rutland 13
1934 Namay, Namer Richard, Lowell 12
1934 Nichols, Wallace Joseph, Medford 11
1933 Nicholson, Joseph Henry, Pittsfield 12
1934 Nigro, Michael Francis, Medford 12
1933 Norton, Matthew Vincent, Brookline 12
1933 O'Doherty, Robert Joseph, Worcester 10
1933 O'Toole, John Bernard, Jr., New Bedford 12
1934 Payne, Edward Albert, Graniteville 12
1933 *Perry, Gale Chadwick, Boston 6
1933 Piper, Randolph, Lexington 11
1934 Pokorny, Norman Anthony, Springfield 18
1933 Poutas, John James, Newton Center 11
1934 Pratt, Henry Nickerson, Brookline 11
1933 Prift, Nicholas John, Boston 10
1933 Puckett, Howard Louis, Lee 38
1933 Pyle, Ivan Graham, Lexington 10
1934 Quinn, Karl Vincent, Belchertown 37

1933	Rabinowitz, Louis, Waltham	12
1933	Reed, William Page, Brookline	11
1933	Regan, Timothy Francis, Lawrence	12
1933	Rosen, Leonard Bernard, Salem	12
1934	Roy, Edward Joseph, Indian Orchard	7
1934	Shapiro, Harry Herbert, Boston	10
1934	Shea, Cyril Emmett, Chicopee Falls	19
1934	Shea, John Thomas, Belchertown	37
1933	*Sherman, Sol, Brighton	20
1934	Shinney, Arthur Paul, Everett	12
1933	Short, Charles Lyman, Brookline	11
1934	Showstack, Irving, Dorchester	12
1933	Shulman, Maurice Harold, Salem	12
1934	Silverman, Nathan, Lawrence	12
1934	Simard, Louis Basil, Haverhill	12
1934	Smith, Clement Andrew, Brookline	38
1934	Smith, Edward Charles, Brighton	11
1934	Snedeker, Lendon, Roxbury	11
1934	Sturgis, Somers Hayes, Boston	11
1933	Sullivan, Charles Noyes, Worcester	9
1934	Swenson, Rudolph Emil, Plymouth	31
1933	Theodorides, Savvas Eusthatiou, Fitchburg	12
1933	Thornton, John Joseph, Boston	12
1933	Thorp, Edward George, Dedham	11
1933	Tierney, Edward James, Dorchester	12
1933	Tilden, Benjamin Robbins, Marion	12
1934	*Touzjian, Yacoub T., Watertown	36
1933	VanRaalte, Leslie Howard, Quincy	11
1933	*Wager, George Vernon, Westfield	20
1933	Wallace, Jacob, Winthrop	12
1934	Ward, Edwin St. John, Baldwinsville	29
1934	*Weisenfeld, Irving Isidore, Framingham	6
1934	Wetherbee, Winthrop, Jr., Boston	29
1933	Wingate, Richard Levi Blaisdell, Cambridge	10
1934	Wislocki, Florence Clothier, Milton	18
1934	Wood, Benjamin Smith, Waltham	11
1933	Yens, Otto Christian, Cambridge	11
1934	Yood, Alfred, Arlington	12
1933	Zadrozny, Mitchell John, Worcester	12
1934	Zollinger, Robert Milton, Roxbury	39

*Indicates that the candidate's diploma was approved by the standing Committee on Medical Education and Medical Diplomas, he was given a personal interview by this committee and permitted to take an examination before a Board of Censors.

Total 231 plus 1 = 232

KEY TO MEDICAL COLLEGES

1. Yale University School of Medicine
2. Syracuse University College of Medicine
3. College of Physicians and Surgeons, Baltimore
4. University of Pennsylvania School of Medicine
6. Middlesex College of Medicine and Surgery
7. University of Vermont College of Medicine
8. Hahnemann Medical College and Hospital of Philadelphia
9. McGill University Faculty of Medicine
10. Boston University School of Medicine
11. Harvard University Medical School
12. Tufts College Medical School
13. University of Montreal Faculty of Medicine
14. St. Louis College of Physicians and Surgeons
15. Rush Medical College of the University of Chicago
16. University of Wisconsin Medical School
17. University of Illinois College of Medicine
18. Johns Hopkins University School of Medicine
19. Georgetown University School of Medicine
20. College of Physicians and Surgeons, Boston
21. Western Reserve University School of Medicine
22. Leonard Medical School
23. Indiana University School of Medicine
24. Woman's Medical College of Pennsylvania
25. Northwestern University Medical School
26. University of Nebraska College of Medicine
27. Albany Medical College
28. College of Medical Evangelists, California
29. College of Physicians and Surgeons, Columbia University
30. Temple University School of Medicine
31. University of Minnesota Medical School
33. Cornell University Medical School
35. University of Toronto Faculty of Medicine
36. School of Medicine Syrian Protestant College (Beirut, Syria)
37. Queen's University Faculty of Medicine
38. University of Michigan Medical School
39. Ohio State University College of Medicine
40. Bowdoin Medical College
41. Meharry Medical College
42. Loyola University School of Medicine.

DEATHS REPORTED FROM JUNE 7, 1933 TO JUNE 6, 1934

Admitted	Name	Place of Death	Date of Death	Age
1898	Adams, John	Roxbury	Aug. 21, 1933	67
1894	Atkinson, Lizzie Daniel Rose	Cambridge	Sept. 20, 1933	80
1881	†Bailey, Charles Hardy	Gardner	July 12, 1933	76
1898	†Bangs, Charles Howard	Swampscott	Aug. 6, 1933	72
1897	Boom, Augustus Keefer	Adams	Jan. 24, 1934	67
1930	Bouvier, Joseph Peter	Whitinsville	Apr. 2, 1934	53
1909	Brant, Austin	Boston	Dec. 15, 1933	52
1909	Bush, Arthur Dermont	Albany, N. Y.	Sept. 6, 1933	58
1917	Butler, Samuel	West Medway	Oct. 16, 1933	54
1905	Carvill, Lizzie Maud	Somerville	Feb. 25, 1934	60
1908	Chalmers, Robert	Woburn	July 22, 1933	71
1906	Churchill, John Darling	Plymouth	Mar. 1, 1934	59
1895	Chute, Arthur Lambert	Boston	Jan. 12, 1934	64
1893	Cooke, Snow Parker Freeman	Gloucester	Apr. 6, 1934	72
1906	Corbett, Jeremiah Joseph	Santa Fe, N. M.	Aug. 24, 1933	55
1929	Cottrell, Samuel Smith	Roxbury	July 16, 1933	44
1890	Currier, William Hale	Worcester	Sept. 27, 1933	74
1881	Cushing, Hayward Warren	Boston	May 8, 1934	78
1894	Darling, Eugene Abraham	Cambridge	Jan. 9, 1934	65
1888	Davis, Ella Maxfield	Holyoke	Apr. 30, 1931	74
1895	†Denig, Blanche Alpine	Oakland, Cal.	May 20, 1934	72
1906	Denning, Edward John	Cohasset	Aug. 2, 1933	54
1901	Denning, William Edward	Worcester	Dec. 7, 1933	61
1916	Dervin, Peter John	Dorchester	June 9, 1933	62
1880	†Dorcey, James Edmund	Boston	Mar. 13, 1934	80
1895	Drew, Fred	Boston	Oct. 22, 1933	65
1923	Eastman, Eugene Bruce	Portsmouth, N. H.	Sept. 6, 1933	56
1894	†Edwards, William Lothrop	Boston	Jan. 20, 1934	70
1873	†Ellis, George Livingstone	Middleboro	Aug. 22, 1933	94

1888	Ensworth, William Howard	East Boston	May	3, 1934	68
1897	†Fay, Frank Gleason	Boston	Aug.	31, 1933	74
1930	Hartmere, Samuel John	Winthrop	Nov.	1, 1933	38
1878	Hill, Edgar Dwight	Plymouth	Nov.	4, 1933	80
1917	Hill, Ernest Linwood	Framingham	Apr.	1, 1934	55
1896	Hill, George Hillard	Worcester	May	18, 1934	64
1877	†Hills, William Barker	Upper Montclair, N. J.	Dec.	24, 1933	83
1903	Hodgdon, Ralph Franklin	Somerville	June	8, 1933	53
1883	Holyoke, Frank	Holyoke	Dec.	5, 1933	78
1914	Horsman, Hiram Lionel	North Grafton	Nov.	13, 1933	63
1899	Howe, Joseph Dimock	Pittsfield	Jan.	30, 1934	64
1896	Hubbard, Joshua Clapp	Wayland	Jan.	11, 1934	64
1911	Jackson, Delbert Linscott	Brookline	Jan.	1, 1934	52
1880	†Jackson, William Benjamin	Cambridge	Oct.	6, 1933	75
1892	†Jones, Lyman Asa	Walpole	Oct.	26, 1933	67
1904	Kirby, Holder Crary	New Bedford	July	26, 1933	58
1902	Knight, Charles Sumner	Westboro	Sept.	21, 1933	77
1920	Kotter, Moses George	Malden	Jan.	7, 1934	39
1904	Lindsey, John Hathaway	Fall River	July	29, 1933	62
1876	†Loring, Robert Pearmain	Newton Center	Oct.	29, 1933	81
1912	Lougee, George Woodworth	Lynn	Aug.	4, 1933	74
1896	MacDonald, Alexander Ambrose	Antigonish, N. S.	Jan.	7, 1934	69
1887	†Macdonald, Colin William	Jamaica Plain	Apr.	19, 1934	76
1898	Mahoney, Edward Joseph	Springfield	Mar.	26, 1934	63
1888	Mahoney, Stephen Andrew	Holyoke	Mar.	30, 1934	71
1879	†Matte, John Hubert Ambrose	North Adams	Dec.	9, 1933	85
1932	Mayne, James Elmo	Winchester	Dec.	26, 1933	32
1932	McCabe, Charles Penny	Roxbury	Dec.	15, 1933	39
1891	†McGauran, Michael Sheridan	Lawrence	Mar.	25, 1934	86
1898	McGrath, Bernard Francis	New York, N. Y.	Oct.	16, 1933	64
1906	Mehan, Joseph Aloysius	Lowell	Oct.	12, 1933	56
1896	†Merrill, William Howe	Lawrence	Feb.	18, 1934	69
1897	†Mitchell, Harry Walter	Warren, Pa.	June	13, 1933	65
1887	Morrison, William Alexander	Boston	Dec.	19, 1933	77
1906	Morrow, William Robert	Framingham	Aug.	6, 1933	68
1886	†Newhall, Herbert William	Lynn	June	18, 1933	75
1914	Newton, Edward Roswell	Brookline	May	19, 1934	50
1917	Niles, John Otis Garfield	Newburyport	June	5, 1934	54
1912	O'Brien, Carl Robert	Bangor, Me.	Jan.	16, 1934	49
1903	O'Brien, John Francis	Providence, R. I.	Oct.	27, 1933	65
1899	O'Keefe, Daniel Thomas	South Boston	June	22, 1933	66
1930	Ostrom, Hjalmar	Roxbury	May	24, 1934	52
1922	O'Toole, Thomas Henry	Norwood	Apr.	4, 1934	62
1885	†Perry, Martha	New Bedford	Mar.	29, 1934	93
1870	Post, Abner	Cambridge	Apr.	20, 1934	89
1907	Potter, John Claude	Framingham	July	30, 1933	54
1890	†Quackenboss, Alexander	Boston	Oct.	27, 1933	67
1921	†Randall, Francis Drew	Tampa, Fla.	Mar.	18, 1933	74
1893	Richards, George Lyman	West Dennis	Nov.	9, 1933	70
1904	Richardson, Frank Linden	Newtonville	Nov.	16, 1933	56
1903	Ripley, William Littlefield	Brighton	May	1, 1934	62
1925	Robinson, Fred Hilliard	Wolfeboro, N. H.	Aug.	31, 1933	64
1911	Sadler, Roy Angelo	Boston	Jan.	18, 1934	51
1898	Schneider, Jacob Philip	Palmer	Nov.	12, 1933	66
1927	Scribner, James Merle	West Medford	May	11, 1934	31
1927	Shaw, John Holbrook	Plymouth	Feb.	13, 1934	65
1905	Simmons, Fred Albert	Boston	May	27, 1934	57
1920	Smith, Joseph Andrew	Worcester	Apr.	16, 1934	59
1899	Stockwell, Herbert Emmons	Stockbridge	July	30, 1933	63
1893	Stone, Byron	North Oxford	Dec.	28, 1933	82
1893	Sweetsir, Charles Leslie	Lowell	May	18, 1933	63
1910	Swift, John Baker, Jr.	Chestnut Hill (Brookline)	Mar.	9, 1934	50
1886	Tolman, Julia	Arlington	Jan.	1, 1934	80
1885	†Townsend, Charles Wendell	Boston	Apr.	3, 1934	74
1926	Webber, Charles Sumner	Weymouth	May	16, 1934	37
1894	West, George Leon	Newton Lower Falls	Nov.	18, 1933	65
1882	†Wetherbee, Roswell	Belmont	July	1, 1933	75
1917	Willey, Walter Brown	Everett	Dec.	7, 1933	41
1898	Willis, Charles Austin	Waltham	Dec.	10, 1933	55
1897	†Yenetchi, Henry Ainsworth	Medford	June	9, 1933	76

†Retired Fellow.

Total number of deaths, 99.

OFFICERS OF THE MASSACHUSETTS MEDICAL SOCIETY FOR 1934-1935

ELECTED BY THE COUNCIL, JUNE 5, 1934

President: William H. Robey, Boston, 202 Commonwealth Avenue.

Vice-President: Philemon E. Truesdale, Fall River, 151 Rock Street.

Secretary: Walter L. Burrage, Brookline, 182 Walnut Street.

Treasurer: Charles S. Butler, Boston, 257 Newbury Street.

Orator: Brace W. Paddock, Pittsfield, 7 North Street.

STANDING COMMITTEES FOR 1934-1935

COMMITTEE OF ARRANGEMENTS

W. M. Shedden, *Chairman;* W. R. Morrison, Horatio Rogers, W. S. Burrage, R. P. Stetson.

COMMITTEE ON PUBLICATIONS

R. I. Lee, *Chairman;* Homer Gage, R. B. Osgood, R. M. Smith, F. H. Lahey.

COMMITTEE ON MEMBERSHIP AND FINANCE

D. N. Blakely, *Chairman;* Gilman Osgood, G. C. Caner, J. E. Fish, H. F. Newton.

COMMITTEE ON ETHICS AND DISCIPLINE

David Cheever, *Chairman;* W. D. Ruston, S. F. McKeen, A. C. Smith, R. L. DeNormandie.

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL DIPLOMAS

Reginald Fitz, *Chairman;* C. H. Lawrence, C. A. Sparrow, E. S. Calderwood, A. S. Begg.

COMMITTEE ON STATE AND NATIONAL LEGISLATION

W. H. Robey, *Chairman;* T. J. O'Brien, F. E. Jones, A. W. Marsh, Shields Warren.

COMMITTEE ON PUBLIC HEALTH

Dwight O'Hara, *Chairman;* E. F. Cody, F. G. Curtis, G. N. Hoeffel, G. D. Henderson.

COMMITTEE ON MALPRACTICE DEFENCE

F. G. Balch, *Chairman;* E. D. Gardner, F. B. Sweet, R. P. Watkins, A. W. Allen.

COMMITTEE ON PERMANENT HOME

T. J. O'Brien, *Chairman;* S. B. Woodward, C. G. Mixter, J. M. Birnie, R. B. Greenough.

SPECIAL COMMITTEES FOR 1934-1935

NEW ENGLAND MEDICAL COUNCIL

W. P. Bowers, *Chairman;* B. W. Paddock, T. H. Lanman, H. G. Stetson, W. H. Robey.

COMMITTEE ON CANCER

R. B. Greenough, *Chairman;* F. G. Balch, G. H. Bigelow, G. F. Martin, P. E. Truesdale.

REPRESENTATIVES TO THE MASSACHUSETTS CENTRAL HEALTH COUNCIL

On Administrative Board
Dwight O'Hara.

District Representatives
Eastern: E. P. Joslin, A. W. Dudley.
Northeastern: M. A. Tighe, F. W. Snow.
Southeastern: W. D. Kinney, C. P. Curley.
Central: G. D. Henderson, E. C. Miller.
Western: H. J. Downey, R. J. Carpenter.

COMMITTEE ON PUBLIC EDUCATION
(A sub-committee of the Standing Committee on Public Health)

G. R. Minot, W. H. Robey, F. J. Cotton, F. C. Irving, R. M. Smith, E. H. Place, C. C. Simmons, J. H. Pratt, H. W. Stevens, J. B. Ayer, H. P. Mosher, R. B. Osgood, F. R. Ober, E. P. Joslin, J. D. Barney, H. L. Lombard.

COMMITTEE ON POSTGRADUATE MEDICAL INSTRUCTION

Frank R. Ober, Boston, *Chairman;* James H. Means, Boston; Roy Morgan, Westfield; John M. Birnie, Springfield; Harold L. Higgins, Boston; Joseph W. O'Connor, Worcester; Charles W. Blackett, Jr., Newtonville; Dwight O'Hara, Waltham; Reginald Fitz, Boston; Alexander S. Begg, West Roxbury; Albert W. Stearns, Billerica; R. B. Greenough, Boston; Walter P. Bowers, Clinton; Henry D. Chadwick, Boston; C. Macfie Campbell, Roxbury; Lincoln Davis, Boston; Leroy E. Parkins, Boston, *Secretary.*

COMMITTEE ON PUBLIC RELATIONS

One member appointed yearly by each District Medical Society.

The President of the parent society, William H. Robey, is chairman.

Barnstable District Medical Society
John I. B. Vail, Hyannis, 155 Main Street. Secretary.

Berkshire District Medical Society
P. J. Sullivan, Dalton, 46 Curtis Avenue.

Bristol North District Medical Society
Francis H. Dunbar, Mansfield. P. O. address, Boston, 43 Bay State Road.

Bristol South District Medical Society
William F. MacKnight, Fall River, 591 Middle Street.

Essex North District Medical Society
Elmer S. Bagnall, Groveland, 281 Main Street.

Essex South District Medical Society
Harper E. Whitaker, Gloucester, 34 Pleasant Street.

Franklin District Medical Society
Richard A. McGillicuddy, Turners Falls, 113 Avenue A.

Hampden District Medical Society

Hampshire District Medical Society
Francis E. O'Brien, Haydenville, Hampshire County Sanatorium.

Middlesex East District Medical Society
J. Harper Blaisdell, Winchester. Office Boston, 5 Bay State Road.

Middlesex North District Medical Society
Michael A. Tighe, Lowell, 9 Central Street.

Middlesex South District Medical Society
Charles E. Mongan, Somerville, 24 Central Street.

Norfolk District Medical Society
Walter A. Lane, Milton, 173 School Street.

Norfolk South District Medical Society
William G. Curtis, Wollaston, 10 Grand View Avenue.

Plymouth District Medical Society
Thomas H. McCarthy, Brockton, 142 Main Street.

Suffolk District Medical Society
Harry W. Goodall, Boston, 51 Bay State Road.

Worcester District Medical Society
Ernest L. Hunt, Worcester, Worcester City Hospital.

Worcester North District Medical Society
Fred R. Dame, Athol, 1302 Main Street.

DELEGATES AND ALTERNATES TO THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

DELEGATES	ALTERNATES
J. M. Birnie, Springfield	W. C. Leary, Springfield
C. E. Mongan, Somerville	L. S. McKittrick, Boston
J. F. Burnham, Lawrence	E. L. Hunt, Worcester
W. H. Robey, Boston	Cadis Phipps, Brookline
E. F. Cody, New Bedford	P. E. Truesdale, Fall River
R. I. Lee, Boston	C. H. Lawrence, Jr., Boston

COUNCILORS—1934-1935

ELECTED BY THE DISTRICT MEDICAL SOCIETIES AT THEIR ANNUAL MEETINGS, APRIL 15 TO MAY 15, 1934

NOTE:—The initials M. N. C. following the name of a Councilor indicate that he is a member of the Nominating Committee. V. P. indicates that a member is a Councilor by virtue of his office as President of a district society and so Vice-President of the general society. C. indicates that he is chairman of a standing committee, Sec. that he is secretary of his District Society.

BARNSTABLE
J. L. Chute, Osterville, V. P.
S. M. Beale, Sandwich.
W. D. Kinney, Osterville, M. N. C.
J. I. B. Vail, Hyannis, Sec.

BERKSHIRE
W. P. Kelly, Pittsfield, 61 Union St., V. P.
I. S. F. Dodd, Pittsfield, 34 Fenn St.
H. J. Downey, Pittsfield, 184 North St., Sec. M. N. C.
W. T. Frawley, Pittsfield, 184 North St.
W. L. Tracy, Pittsfield, 344 North St.

BRISTOL NORTH
F. V. Murphy, Attleboro, 51 Bank St., V. P.
W. H. Allen, Mansfield, 70 North Main St., M.N.C.
A. R. Crandell, Taunton, 48 Church Green.
C. B. Kingsbury, Taunton, 63 Prospect St., Sec.
B. M. Latham, Mansfield, 26 North Main St.

BRISTOL SOUTH
F. M. Howes, New Bedford, 135 Cottage St., V. P.
R. B. Butler, Fall River, 278 North Main St.
J. A. Barre, Fall River, 1555 Pleasant St.
R. H. Baxter, Marion, 6 South St.
G. W. Blood, Fall River, 82 New Boston Road.
E. F. Cody, New Bedford, 105 South Sixth St., M. N. C.
E. D. Gardner, New Bedford, 150 Cottage St.
S. V. Merritt, Fall River, 297 Osborn St.
W. A. Nield, New Bedford, 286 Pleasant St.
Charles Shanks, New Bedford, 645 Kempton St., Sec.
I. N. Tilden, Mattapoisett, Barstow St.
P. E. Truesdale, Fall River, 151 Rock St.

ESSEX NORTH
John Parr, Methuen, 7 Hampshire St., V. P.
E. S. Bagnall, Groveland, 281 Main St.
R. V. Baketel, Methuen, 7 Hampshire St.
J. F. Burnham, Lawrence, 567 Haverhill St., M. N. C.
H. F. Dearborn, Lawrence, 193 Garden St.
T. R. Healy, Newburyport, Office Boston, 370 Marlborough St.
E. P. Laskey, Haverhill, 30 Summer St.
J. J. McArdle, Lawrence, 477 Essex St.
F. W. Snow, Newburyport, 24 Essex St.
L. T. Stokes, Haverhill, 190 Main St.
W. D. Walker, Andover, 121 Main St.

ESSEX SOUTH
C. L. Hoitt, Lynn, 170 Western Ave., V. P.
F. W. Baldwin, Danvers, 25 Conant St.
N. P. Breed, Lynn, 9 Washington Sq.
C. L. Curtis, Salem, 101 Federal St.
J. F. Donaldson, Salem, 22 Lynde St.
R. E. Foss, Peabody, 125 Main St., M. N. C.
E. B. Hallett, Gloucester, 63 Middle St.
W. T. Hopkins, Lynn, 7 Atlantic St.
J. F. Jordan, Peabody, 76 Lynn St.
A. E. Parkhurst, Beverly, 163 Cabot St.
O. S. Pettingill, Middleton, Essex County Sanatorium.
C. H. Phillips, Beverly, 11 Broadway.
W. G. Phippen, Salem, 31 Chestnut St.
R. E. Stone, Beverly, 88 Lothrop Boulevard, Sec.
J. W. Trask, Lynn, 90 Ocean St.

FRANKLIN
H. B. Marble, Shelburne Falls, 63 Bridge St., V.P.
H. M. Kemp, Greenfield, 42 Franklin St., M. N. C.
H. G. Stetson, Greenfield, 39 Federal St., Ex-Pres.
A. H. Wright, Northfield, Main St.
Charles Moline, Sunderland, Off. South Deerfield, 120 Main St., Sec.

HAMPDEN
A. J. Douglas, Westfield, 93 Elm St., V. P.
F. H. Allen, Holyoke, 16 Fairfield Ave.
E. P. Bagg, Jr., Holyoke, 207 Elm St.
J. B. Bigelow, Holyoke, 109 Suffolk St.
J. M. Birnie, Springfield, 14 Chestnut St., Ex-Pres.
W. A. R. Chapin, Springfield, 121 Chestnut St.
Frederic Hagler, Springfield, 20 Maple St.
G. D. Henderson, Holyoke, 312 Maple St.
M. W. Harrington, Indian Orchard, 70 Oak St.
M. B. Hodskins, Palmer, Monson State Hospital.
E. A. Knowlton, Holyoke, 207 Elm St.
J. Z. Naurison, Springfield, 121 Chestnut St.
M. W. Pearson, Ware, 19 Pleasant St.
A. G. Rice, Springfield, 33 School St.
G. L. Schadt, Springfield, 44 Chestnut St., M.N.C.
H. L. Smith, Springfield, 249 Union St., Sec.
G. L. Steele, Springfield, 20 Maple St.

HAMPSHIRE
T. F. Corriden, Northampton, 16 Center St., V. P.
A. J. Bonneville, Hatfield, 43 Main St.
J. G. Hanson, Northampton, 219 Elm St., M. N. C.
F. E. O'Brien, Haydenville, Hampshire County Sanatorium, Sec.

MIDDLESEX EAST
J. H. Fay, Melrose, 49 Lake Avenue, V. P.
J. H. Blaisdell, Winchester, Office Boston, 5 Bay State Road.
Richard Dutton, Wakefield, 33 Avon St.
E. M. Halligan, Reading, 3 Salem St.
K. L. Maclachlan, Melrose, 1 Bellevue Ave., Sec.
R. R. Stratton, Melrose, 538 Lynn Fells Parkway, M. N. C.
E. E. Tyzzer, Wakefield, Office Boston, 240 Longwood Ave.

MIDDLESEX NORTH

F. R. Mahony, Lowell, 310 Merrimack St., V. P.
M. L. Alling, Lowell, 9 Central St.
A. R. Gardner, Lowell, 16 Shattuck St.
J. E. Lamoureux, Lowell, 763 Merrimack St.
G. A. Leahey, Lowell, 128 Merrimack St.
B. H. Pillsbury, Lowell, 3 Merrimack St., M. N. C.
T. A. Stamas, Lowell, 226 Central St., Sec.
M. A. Tighe, Lowell, 9 Central St.

MIDDLESEX SOUTH

A. H. Blake, West Somerville, 81 College Avenue, V. P.
C. F. Atwood, Arlington, 821 Massachusetts Ave.
E. W. Barron, Malden, Office Boston, 20 Ash St.
C. F. K. Bean, West Medford, 51 Harvard Avenue.
E. H. Bigelow, Framingham Center, 31 Pleasant St., Ex-Pres.
G. F. H. Bowers, Newton Highlands, 156 Woodward St.
C. O. Chase, Watertown, 6 Patten St.
F. R. Clark, Newtonville, 221 Walnut St.
W. H. Crosby, Brighton, 304 Faneuil St.
A. C. Cummings, Newton, 447 Center St.
D. F. Cummings, Natick, 12 East Central St.
D. C. Dow, Cambridge, 1587 Massachusetts Ave.
A. W. Dudley, Cambridge, 1740 Massachusetts Ave., M. N. C.
I. J. Fisher, West Newton, 79 Chestnut St.
H. Q. Gallupe, Waltham, 751 Main St.
W. G. Grandison, Charlestown, 65 High St.
W. W. Harrington, Lexington, 1900 Massachusetts Ave.
F. A. Higginbotham, Watertown, 112 Mt. Auburn St.
N. M. Hunter, Hudson, 20 Lincoln St.
C. M. Hutchinson, Cambridge, 47 Garden St.
L. H. Jack, West Newton, 379 Austin St.
A. M. Jackson, Everett, 512 Broadway.
Josephine D. Kable, Marlborough, 42 West Main St.
A. A. Levi, Cambridge, Office Boston, 485 Commonwealth Ave., Sec.
F. P. Lowry, Newton, 313 Washington St.
L. W. McGuire, Malden, Office Boston, 395 Commonwealth Ave.
J. A. McLean, West Somerville, 16 Curtis St.
Edward Mellus, Newton, 15 Clements Road.
C. E. Mongan, Somerville, 24 Central St.
F. L. Morse, Somerville, 78 Highland Ave.
J. P. Nelligan, Cambridge, 2336 Massachusetts Ave.
W. A. Noonan, Cambridge, Office Boston, 270 Commonwealth Ave.
D. G. Nutter, Newton Center, 1094 Center St.
Dwight O'Hara, Waltham, Office Boston, 520 Commonwealth Ave. C.
C. T. Porter, Waltham, Office Boston, 520 Commonwealth Ave.
Ezekiel Pratt, Arlington, 385 Massachusetts Ave.
W. D. Reid, Newton, Office Boston, 510 Commonwealth Ave.
S. H. Remick, Waltham, 775 Trapelo Road.
M. J. Shaughnessey, Framingham, 188 Concord St.
F. G. Smith, Somerville, 145 Highland Ave.
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THE MENACE OF DIABETIC GANGRENE*

BY ELLIOTT P. JOSLIN, M.D.†

DIABETIC gangrene has been increasing as a menace to my patients. The percentage of the total mortality has risen from 2.3 per cent prior to 1914 to 5.1 per cent between that year and 1922, to 12.6 per cent from then until into 1926 and since that date has decreased slightly to 10.4 per cent. These figures represent deaths among patients seen one or more times by me since 1898 both in or outside the hospital. The mortality from diabetic coma as contrasted with gangrene has fallen in round numbers from 60 per cent to 5 per cent. Gangrene has risen; coma has fallen. Gangrene deserves more intensive study and the investigation of the cause and type of arteriosclerosis which is responsible for it should help to defer old age for us all.

At the George F. Baker Clinic of the New England Deaconess Hospital we had 972 diabetic patients during 1933; in this number there were 32 deaths and of these 5 or 16 per cent were from gangrene (1 death followed operation performed in Dec., 1932). Fifty-one amputations were done for gangrene and infections of the extremities. Of these 37 were amputations of the leg and 14 were amputations of 1 or more toes. Almost one-third of the patients with gangrene or infections of the feet were operated upon. Diabetic coma caused 4 of the 32 deaths at the George F. Baker Clinic. Through the courtesy of Dr. Francis X. Mahoney of the Boston Board of Health and the City Registrar, I secured copies of the diabetic death certificates in Boston for 1933. You may recollect that in the period investigated by Dr. Hyman Morrison, 1895 to 1913, the deaths from gangrene amounted to 23 per cent and in a recent year I found that one-half of all the diabetic deaths in Boston hospitals were due to gangrene. Boston makes a much better showing in 1933. Thus, there have been 261 deaths and of these, 37 or 14.1 per cent have resulted from gangrene and incidentally 34 or 13 per cent from diabetic coma. As a matter of fact, these percentages will be somewhat reduced because I find lacking in the death certificates furnished me, certificates for diabetic patients who died from cancer, tuberculosis and perhaps other diseases. I doubt, however, that such certificates would increase the total number of diabetic deaths from all causes by as much as 10 per cent.

Lemann years ago pointed out that the mortality from gangrene among his private cases was eight times less than among the cases treated in the Charity Hospital in New Orleans.

Through the courtesy of Dr. Bolduan the statistics for some 686 recent diabetic deaths in New York City have been summarized and it appears that gangrene was present in 159 instances making a mortality of 23 per cent. Incidentally I would add that the mortality from coma based upon 400 replies to a questionnaire, Dr. Bolduan writes, was 37 per cent.

I cannot believe that so wide a discrepancy exists in the statistics for gangrene and diabetic coma between New York and Boston. If it does exist, there must be a reason for it and that is worthy of investigation. The simplest manner in which this can be done would appear to be to study the deaths from diabetes in hospitals in the two cities because approximately one-half of all diabetic deaths occur in hospitals. As a matter of fact, it was exactly one-half in Boston and I suspect not far from this figure in New York. In Boston of the 37 deaths from gangrene 27 occurred in hospitals and 10 outside; in New York City essentially the same proportion, because of 159 recent diabetic gangrene deaths 100 occurred in hospitals and 59 outside. Deaths in hospitals can be analyzed with a minimum of inconvenience and a maximum of accuracy and I believe such analyses carried out jointly by the Boards of Health of the two cities would be productive of good results.

Diabetic gangrene increases with the age of the patient and with the lengthening duration of the diabetes. We should expect, therefore, far more gangrene to-day than formerly and this is shown by my records up to 1926. In the Naunyn Era the average age of the diabetic patient at death was 44 years and the duration of the disease was 4.8 years. Obviously he was too young and hardly had time to develop gangrene. In the last tabulation of my cases by the Metropolitan Life Insurance Company and particularly through the courtesy of its Medical Director, Dr. Augustus Knight, its statistician, Dr. Louis I. Dublin, and Mr. Herbert Marks it appears that for my 1059 diabetic deaths since 1926 instead of an average age of 44 years the average age is 61 years and the duration of the diabetes has increased to about 9 years. On the whole, therefore, I think it encouraging that, despite the patients being 17 years older and having had diabetes nearly twice as long, the deaths from gangrene have increased to such a moderate extent. The duration of the diabetes in the 81 gangrene deaths was 10.4 years.

*George F. Baker Clinic, New England Deaconess Hospital, Boston.

†Joslin, Elliott P.—Medical Director, George F. Baker Clinic, New England Deaconess Hospital. For record and address of author see "This Week's Issue," page 40

The age at death of gangrene in the City of Boston group this year was above 60 years and the records of my own 81 deaths from gangrene since 1926 showed the average age to have been 67.5 years, the median age being practically the same, 67.7 years. There is, therefore, some satisfaction in the thought that the average age at death of all diabetics prior to 1914 was much younger than the average age of such patients in 1926.

Sex. The predominance of diabetes in females in middle life and onwards is well known but it is not so well known that this also holds for gangrene. Thus, of Boston's 37 gangrene deaths 24 were females and 13 males. Similarly in Dr. Bolduan's recent compilation of the gangrene series in New York City there were 106 females and 53 males thus furnishing confirmation of the predominance of female diabetic deaths and indicating where our efforts should be focused. In angina pectoris also the number of females is much greater in diabetic than in non-diabetic populations although it does not predominate. Nathanson found coronary disease in only eight per cent of general autopsy material above 50 years of age, but in 52 per cent of diabetics of the same age.

Race. The record for race is of interest particularly because of the difference between the gangrene mortality in our two cities. Of 261 deaths in Boston this year 41 or 16 per cent occurred among Hebrews. From the data furnished me from New York City I can hardly hazard a guess as to the Jewish percentage of the total deaths or indeed of the gangrene deaths. Of the 37 cases of gangrene however in Boston the Jewish percentage was slightly greater than the percentage of Jews among the total deaths and amounted to 25 per cent.

Season. Gangrene is less frequent in summer than in winter although in August, 1926 we had 12 cases of gangrene or infections of the feet at one time and the Boston statistics show that although we have had 37 fatal cases of gangrene in the city this year there were but a total of seven fatalities in the five months, July, August, September, October, and November. It is easy to understand why gangrene is more common in the winter because the circulation is less good and with cold feet sensation decreases and patients are more liable to burns and frost bites. Furthermore, the feet are much less frequently bathed in the winter than in the summer in the class of patients from which gangrene is largely recruited.

Onset of Gangrene Versus Onset of Diabetes Mellitus. Patients with onset of diabetes 30-39 years of age seldom develop gangrene and if they do it is postponed for 20.8 years as can be seen by the following table. When diabetes begins in the eighth decade, gangrene is apt to appear within 3.8 years on the average.

Decade of Onset	No. of Cases	Duration of D. M. to Beginning of Gangrene
30-39	5	20.8
40-49	19	13.2
50-59	26	9.9
60-69	23	8.7
70-79	8	3.8
	81	

The younger the diabetic the longer is gangrene postponed, but the diabetic had better remember this paraphrase of a Negro song, "Gangrene will get you if you don't look out!"

Certainly sufficient statistics have been quoted to indicate the importance of gangrene in the diabetic problem which we are facing to-day.

The Prevention of Gangrene. Diabetic gangrene is preventable in the overwhelming majority of cases, just as Priscilla White has demonstrated this to be true for diabetic children with cataracts and arteriosclerosis. (1.) Gangrene is overwhelmingly more common in the uncontrolled diabetic. I doubt if we see one patient in a hundred at the George F. Baker Clinic in which gangrene results from an embolus. Consequently, it has been forced upon me that gangrene is not Heaven-sent but is earth-born. The comparison between the incidence of gangrene in private and public patients as cited by Lemann shows the possibility of prevention. Fifty per cent of Elias-on's cases of gangrene at the Philadelphia General Hospital did not even know they had diabetes. It is certainly gratifying that gangrene has increased so little with the aging of the patient and the increase of duration of the diabetes. It certainly does pay to treat diabetes. The methods the average doctor is using to-day are far superior to older methods. We should be encouraged rather than discouraged and press our modern type of treatment upon the patient more and more. We are not aggressive enough in our treatment of diabetes. Dr. F. M. Allen has rightly said that the surest way to produce gangrene is to keep patients alive but only half treat them. Anything which will improve our treatment of the diabetics will tend to postpone the premature aging of the patients; in other words it will defer arteriosclerosis and thus avoid the great cause of gangrene.

(2.) Cleanliness is the second weapon we have to prevent gangrene. Unless there is trauma the clean patient almost invariably avoids gangrene. I cannot speak enthusiastically enough of the cleanliness which many patients show, but with poor people the opportunities for keeping clean are not favorable and they simply don't realize the necessity of doing so. Thus, at the hospital we always talk cleanliness and emphasize the importance of each patient being treated in the Beauty Parlor for Diabetic Feet even though he does

not need to do so. The very name—Beauty Parlor for Diabetic Feet—does good and it is not idle talk to utilize every graphic means to bring this before the public. I feel that if diabetics and doctors realized the value of cleanliness of the feet, an increasing headway against diabetic gangrene would be made.

Cleanliness of the feet amounts to a great deal more than removing the dirt. Bathing softens calluses, corns and dead skin, making their removal easier. The daily bath gives the patient a chance to see if he does have any injuries and thus to discover the trouble early. I know I am not over-emphasizing the need of cleanliness because I have had much experience in Out-Patient Departments and Dispensary districts. I do think diabetic feet should be inspected. If there is a need for it, why not have them washed before the patient is allowed to see the doctor?

(3.) A history of trauma can nearly always be elicited from the patient. Burning the feet with a hot water bag, electric pad or chemical heater is about the most common injury, but a close second are injuries which come from new shoes, or their imperfect linings and ill-fitting old shoes. In our directions for patients we emphasize all these points.

Epidermophytosis furnishes an easy mode of entrance for organisms, because of the frequent fissures which accompany that quite universal infection of the feet. It may seem a detail to tell the patients to wipe their feet gently, but if you wish them to avoid gangrene you must enter into all these minutiae.

(4.) Perhaps the best preventive measure of all which we have at the hospital is the exhibition to new-comers of a few patients who have had gangrene and amputations of a leg or a toe. These gangrene patients are a cheerful and courageous group. Visiting diabetics cannot help drawing useful lessons from the causes of their gangrene but also from the good spirits which they show.

(5.) Our Boston chiropodists are useful allies. They have contributed much to our reduction in gangrene. Nowadays we do not see gangrene which has developed at the hands of a chiropodist. Chiropodists are more than anxious to send doubtful cases to doctors. At the start of our work with them we consulted with the leaders of their State and National societies and these exceptional men have guided us in our contacts.

Medical Treatment. The medical treatment of the diabetic patient with gangrene is simple, because the patient is under absolute control and is willing to do anything to save his extremity. Furthermore, the diabetes is usually mild in character, as was recognized by Naunyn.

The dietetic treatment formerly yielded fair results but it took time. However, it was from the good effects obtained with gangrene patients that I gained positive assurance that dietetic treatment would yield good results with those whose diabetes was more severe. Dr. N. never followed a diet until his leg was cut off, but then I could prove that his diabetes was mild. I suspect that at present out-patients with diabetic gangrene receive on the average at least 150 grams of carbohydrate and as soon as active infection ceases the carbohydrate may be advanced still more, but there are few who take as much as 200 grams. Most of these patients need at least one gram of protein per kilogram body weight, because they are often depleted at the beginning of treatment. The total calories can be made up from fat, but one must remember that an old man or woman abed may gain weight on 25 calories per kilogram body weight or even less. One does not wish to push body weight above normal, particularly after an amputation has been done, because it throws extra strain on the remaining extremity. Practically all diabetic patients with gangrene at one time or another have been fat.

Constantly we are on the watch for the presence of pernicious anemia in these patients. We take great pains to give them abundant fresh vegetables and fruit. We must not forego the advantages of those articles which were included in our former lower carbohydrate and higher fat diets. Likewise we give consideration to calcium and few of these patients have less than a quarter of a pint of cream and a half pint of milk which, with an egg and abundant vegetables and fruits, will furnish them the required 0.7 grams of calcium per day.

Exercise is a mainstay of any diabetic and as soon as active infection subsides we promote this through help of a physiotherapist and with dumb-bells, pully weights and various measures. The pre-gangrene cases often use the Buerger board and that for an hour three times a day gives ample exercise for many of the older people. Exercise should be continued when the patient goes home and persistence in it yields large benefits. One man about 50 years of age took up farming and the vessels of his feet a year later carried much more blood.

Insulin is used freely, remembering that it is safer to give small doses often than large doses once a day to elderly people whose hearts are vulnerable; and practically all patients with diabetic gangrene have sclerosis of the coronary arteries. Soon the insulin can be decreased from three to two times a day, often to once a day and quite often omitted, but I think our custom now is to give insulin a little more freely than formerly, even if the urine is sugar-free, provided the blood sugar reaches 0.20 (200 milligrams) per cent. We use insulin decidedly more rather than less with our gangrene patients. However, we are very cautious

about overdosage with insulin with elderly people and particularly so at the time of operation.

Surgical Treatment. The surgical treatment of gangrene as practiced by Dr. McKittrick and Dr. Pratt upon my patients must be quite good because this year there have been 37 amputations of the leg and 14 amputations of toes with but 4 fatalities and obviously many of these patients have been in extremely poor condition. It was necessary to operate upon one patient soon after a coronary thrombosis and upon another with a fibrillating heart. All the members of a ball team cannot pitch the ball and no ball team wins which tries to have each member of the nine in the pitcher's box. It is only common sense to provide in a large general hospital for specialization in diabetic surgery.

Special anesthesia is employed in carrying out amputations of extremities.

Decision about the time of operation is all-important. I have no sympathy whatsoever in prolonging medical treatment for one year in order to save a foot, because I know that along in the sixties the average expectancy of life of the average gangrene patient is only two to three years. With patients under 50 and with infections instead of gangrene one is justified in spending months to save a foot. It almost brought tears to my eyes some months ago to see a patient exhibited as an example of wonderful medical care when I learned he had been confined to a hospital for a year. I believe patients should be freed from suffering and sent home and not kept in the hospital for half of their remaining lives.

Decision is likewise all-important as to whether a guillotine operation will be life saving in an apparently hopeless case. We have but three or four such cases a year. However, I do not intend that any of my patients shall be left to die as hopeless cases simply because they have gangrenous legs. I have seen too many instances in which a guillotine operation has prevented what appeared to be destined for a fatal outcome. The decision must rest with the surgeon and when he has reached it, the physician must do everything he can to put the patient in the best state possible for operation. Of course if there is really no haste for an operation one would spend time in rendering the patient sugar-free and building him up generally. On the other hand, the anticipation of what is to take place is a factor which tends to shorten this pre-operative interval as much as possible.

The results of diabetic surgery are far safer than any of the books and papers imply, but even now with a mortality at 15 per cent this is actually higher than cancer of the rectum at 13 per cent. Major operations for gangrene have a mortality of 16 per cent and major operations for infections have a mortality of 7 per cent. It is because of the still higher mortality in former years that the prejudice against operation arose.

Indications for Operation. By operation it is understood that usually amputation of an extremity is meant. These indications are as follows:

1. Gangrene in a painful, pulseless foot.
2. Pain in a pulseless foot which is not relieved within two weeks by rest in bed, Buerger's exercises and other medical measures.
3. Osteomyelitis. Here a toe alone may be amputated. Indeed an additional toe may be sacrificed merely to secure adequate drainage.
4. Recurrent ulcers in a callus.
5. Extensive infections which necessitate a guillotine operation.

The surgeon occasionally can break the rule and amputate a toe in the absence of a pulsating dorsalis pedis artery and secure a good result. In such instances the collateral circulation is particularly abundant and the foot warm. No instrumental methods for the determination of the circulation are equal to palpation for pulsation of the blood vessels, the observation of the ischemic or cadaveric color of the foot on the bed, and of rubor when the feet are hung down out of bed for three minutes, and the persistence of pain following two weeks in a horizontal position. Dead bone can be detected by a probe, before it is visualized by x-ray.

In general the older the patient the higher the level of amputation, but there are many exceptions. Mrs. T., Case No. *12381*, whom I saw New Year's Day, had one toe removed at the age of 77.

Hospital stay has been gradually shortened. In a recent summary it was 47 days for minor infections and 52 days for minor lesions due to defective circulation, in contrast to 41 days for major operations due to infections and 38 days for major operations due to impaired circulation. Even the non-operative cases remained in the hospital an average of 19 days. Surgical treatment is time-consuming and expensive. It costs far more to save a toe than a leg. Sad to relate it is the exception for the diabetic who has gangrene or an infection of a leg which demands amputation to survive more than three years after discharge from the hospital. Dr. Richard Dutton tells me of one patient now 76 years of age who had one leg amputated above the knee 18 years ago in 1916 and the other in 1923.

In our pre-operative care of the patient our ideas have changed somewhat in the last few years. At present no food is given for four

hours before operation. On the other hand, we do give the patient a full diet the previous night but are particular that the character of the food is simple and not such as to leave a residue in the stomach. We have found that if the patient was fed as long as four hours before an operation the thought of the operation apparently interfered with the emptying of the stomach and the patient would vomit in the operating room. By withholding food, vomiting is avoided and convalescence is more rapid.

Prior to operation no insulin is given as a routine unless obviously indicated by the individual case. Our object in curtailing insulin is to avoid the possibility of hypoglycemia during the operation. No preoperative medication is given for the amputation cases and this applies to morphine, atropin, and tetanus antitoxin. Wounds are sewed up tight and not drained. The preliminary use of perfringins antitoxin has not been found necessary. There have been but two cases of gas bacillus infection in our diabetics at the Deaconess in six years. Ointments and moist dressings are avoided in gangrene cases. Following operation the patient is placed in a bed with a Balkan frame with handles from the upper bars so as to facilitate moving about in bed and thus obtaining exercise. It also facilitates the nursing care. A heavy woolen sock is placed on the remaining foot so that it will be protected from cold, heat, and pressure in bed. Similarly pillows rather than rings are used to keep the remaining heel off the bed. Patients are turned on their side every two hours. No rubber sheets are employed. By following the latter two rules we have found that we could dispense with the use of ultraviolet ray and it is possible that the ultraviolet ray to the back which we formerly universally employed really had its virtue in its requirement that the position of the patient should be changed frequently.

Free drainage of the infected area is also insisted upon even if it becomes necessary for this purpose to remove an extra toe or portions of metatarsals. Dakin's solution is employed every two hours day and night, and neighboring tissues are protected with rubber cement. Ointments are not employed. Preoperatively the Buerger board is used freely.

During convalescence every inducement is made to teach the patient to walk with a peg leg before he leaves the hospital. We are far more interested in the patient having a peg leg than an artificial leg. At home he may not make an effort to walk or the cost of an artificial leg may delay his attempt.

Gangrene is rare in the upper extremity. The same rule holds, however, as for the lower extremity, namely, never to use a tourniquet on the extremity, even the finger, of a diabetic.

The financial aspect of gangrene is serious. The medical treatment of gangrene during weeks and months in home or hospital is far more expensive than early surgery. It is likewise far more wearing on the patient's nerves. Subsequently patients regret the postponement of their operation and returning to the hospital advise other patients to be operated upon earlier. So many of these late cases come to me in financial straits and so few pay my surgical colleagues anything, that I am almost ashamed to look the latter in the face. An infected or gangrenous foot before it is healed costs, in my opinion, at least $300, quite apart from medical, surgical or special nursing fees or loss of wages.

Delay in the recognition of the seriousness of an infection of the foot and delay in reporting to a physician are analogous to the delay in detection of early tuberculosis. Even when the doctor is consulted early, it is easy to temporize not only for those medical men unaccustomed to cases of gangrene, but for those of us who see a great many cases. I have the greatest sympathy with practitioners who are called upon to care for these patients, because over and over again we ourselves, who see so many in the hospital, delay too long in advising operation.

Hopefulness in the treatment of gangrene is possible. It comes first of all from the knowledge that the majority of the cases are needless and occur in those diabetics who have not been trained in the care of their feet or who have not followed training; secondly, that during the first 25 years of my practice 43 per cent of my gangrene cases were under the age of 60 years, but in 1932 only 24 per cent; thirdly, it is almost always preceded by an infection and therefore prompt treatment of the infection might have prevented the gangrene. Yet, with the present tendency toward great prolongation of life in the earlier decades of diabetes, it is only fair to say that every diabetic is potentially a case of gangrene.

"If the beginning of gangrene were as noisily ushered in as an attack of biliary or renal colic the results of treatment would be far different. Death from gangrene to-day is usually the result of procrastination on the part of the physician and patient, and in the past was often associated with the inauguration of a fat-protein diet and ether anesthesia. Surgery often receives, but seldom deserves, the blame for a fatal issue."

LIVER ABSCESS: A REVIEW OF EIGHTY-FIVE CASES*

BY CHESTER S. KEEFER, M.D.†

THE clinical diagnosis of liver abscesses, whether they are single or multiple, frequently presents many difficulties. This is especially true if there is no obvious portal of entry for such an infection, as is the case in some instances of *Entameba histolytica* infection. For this reason ten cases of multiple liver abscesses due to various causes which I have observed, together with seventy-five cases which have been recorded in the Pathological Laboratory of the Boston City Hospital, have been reviewed and summarized in an attempt to gather more precise information regarding the pathogenesis, the course and complications of hepatic suppuration.

Inasmuch as infection reaches the liver by one of the following routes, the hepatic artery, direct extension from neighboring organs and through the radicles of the portal vein or the bile ducts, the cases were divided into groups according to the modes of infection which are summarized in table 1. They are discussed in the order of their importance.

TABLE 1

CONDITION IN WHICH LIVER ABSCESSES WERE OBSERVED—85 CASES

1) *Thrombosis of Radicles of Portal Vein*			19 Cases
Appendicitis		16	
Gall Bladder Infection		1	
Splenic Abscess		1	
Strangulated Hernia		1	
2) *Primary Lesion in Portal Area—No Pylephlebitis*			22 Cases
from:			
Appendicitis		3	
Typhoid Fever		2	
Ulcers in Ileum		3	
Carcinoma of Stomach		2	
Amebic Dysentery		9	
Multiple Abscesses	5		
Single Abscess	4		
Rectal Abscess		1	
Bacillary Dysentery		1	
Pancreatitis		1	
3) *Direct Extension into Liver Substance*			11 Cases
from:			
Empyema of Gall Bladder		3	
Perforated Gastric Ulcer		1	
Lobar Pneumonia with Empyema		4	
Carcinoma of Stomach		1	
Subdiaphragmatic Abscess		1	
Carcinoma of Kidney		1	
4) *Extension through Biliary Passages*			13 Cases
from:			
Stones with Cholangitis		9	
Carcinoma of Gall Bladder		3	
Stricture of Bile Duct		1	
5) *Metastatic—Generalized Sepsis*			11 Cases
Staphylococcal Sepsis		5	
Otitis Media		3	
Leukemia		1	
Tonsillitis		1	
Cytogenetic Sepsis		1	
6) *Miscellaneous*			9 Cases
Actinomycosis		1	
Tuberculosis		1	
Hydatid Disease		3	
Streptothrix Infection		1	
Acute Pancreatitis		1	
Cause Undetermined		2	

Multiple Liver Abscesses Resulting from Pylephlebitis Suppurativa. This was present in nineteen cases, the commonest primary lesion being a suppurative appendicitis; other sites were suppuration of the gallbladder, a metastatic abscess of the spleen, and an infection about a strangulated hernia. The case following an abscess of the spleen was of interest inasmuch as the patient had had a streptococcus cellulitis of the left leg two months prior to the onset of the pylephlebitis. The obvious course of events was streptococcus cellulitis, metastatic abscess of spleen, thrombosis of the splenic vein, and multiple abscess of the liver. Similar cases have been observed following puerperal infection by Lenhartz[1], or following an abscess or gangrene of the lung, which have been subjects of special study by Rabin and Moolten[2]. They have observed five cases of suppurative pylephlebitis following pulmonary and splenic abscess. The sequence of events was as follows: As a result of the suppurative process in the lung, a thrombophlebitis of one or more of the pulmonary veins developed; this was followed by a metastatic abscess to the spleen, thrombophlebitis of the splenic vein and multiple liver abscesses. They emphasized the importance of jaundice as a diagnostic sign of pylephlebitis in the patients with suppurative pulmonary lesions. It must be remembered, however, that patients with pulmonary infections may show jaundice without suppuration in the liver. This is true of metastatic abscesses of the lung as well as primary pulmonary suppuration[3].

The clinical picture in cases of pylephlebitis is usually characteristic. Following suppuration in any of the areas drained by the portal vein, chills, irregular fever and sweats appear. The liver and spleen may enlarge, and jaundice appears in about one-half the cases. Leucocytosis, bilateral pleural friction rub, and hiccough, in the presence of negative blood cultures frequently form a part of the picture. All of these symptoms and signs may be so outstanding that the primary site of suppuration

*From the Thorndike Memorial Laboratory, Second and Fourth Medical Services (Harvard), Boston City Hospital, and the Department of Medicine, Harvard Medical School, Boston, Mass.

†Keefer, Chester S.—Assistant Professor of Medicine, Harvard Medical School. For record and address of author see "This Week's Issue," page 46.

is completely overshadowed and may be overlooked. This is particularly true when the original infection starts as an appendicitis. In twelve cases recently reported from the Johns Hopkins Hospital by Rich and Hamman[4], seven followed appendicitis, two, cholangitis, while strangulated hernia, diphtheritic gastritis and liver abscess were each responsible once. Other sources of infection are pancreatic abscess following typhoid fever[5], acute pancreatitis, suppuration or tuberculosis of the abdominal lymph nodes, the latter causing portal vein tuberculous infection of the liver[6].

Liver Abscesses Due to Metastatic Lesions—Primary Process in Portal Area—No Pylephlebitis. The common cause of liver abscess, in this group, was *Entamœba histolytica* infection. In five cases, the abscesses were multiple, in four they were single. In six of the nine cases, there was an active amebic dysentery or a recent history of diarrhea; in the other three there was no history of diarrhea, and at autopsy the only lesions found in the colon were a few ulcers, especially about the cecum. It should be recalled then that liver abscesses may result from amebic infection without a preceding history of acute dysentery. In these cases the signs are those of a liver abscess or its complications without diarrhea, or a history of dysentery. A careful search of the stools for amebic cysts should be made in every patient suspected of having an abscess of the liver. If they are found the diagnosis receives support and gives the clue regarding the etiologic agent in spite of a negative history of diarrhea. In the cases of acute dysentery, if liver abscesses are present they are usually small in size, multiple in number and may give rise to no clinical signs of liver disease. On occasions, an amebic abscess of the liver may give rise to the symptoms and signs of a septic infection with very few localized signs of liver disease. Indeed, attention may only be directed to the liver following the extension of the abscess to the peritoneum, subdiaphragmatic space or lung. When the abscess perforates into the peritoneal cavity and remains localized, it may be confused with a pericolic abscess of the transverse colon resulting from the perforation of the intestine. As a rule this latter complication of amebic dysentery can be discriminated against, since it occurs only during the course of the acute dysentery.

In the non-amebic cases, primary areas of suppuration were present somewhere in the gastrointestinal tract and, in some, the liver abscesses were not manifest clinically. For this reason, they should be searched for in any patient whose clinical course seems more severe than the local lesion would seem to indicate. Occasionally such abscesses are single[7].

Liver Abscesses Arising from Direct Extension of Infection into the Liver. In this group there were ten cases in which an area of suppuration extended directly into the liver. While the extension took place most frequently from neighboring abdominal organs, there were several other cases of especial interest. The instances following lobar pneumonia with empyema were examples of infection from right-sided empyema extending directly through the diaphragm into the liver. While it is much less common to have infections of the pleura extend through the diaphragm to the peritoneal cavity than in the reverse direction, these examples are of interest in suggesting the possible outcome in cases of long-standing empyemata. The case in which a carcinoma of the kidney pelvis was responsible for an abscess arose by invasion of the large bowel and perforation with a localized pericolic abscess which extended directly into the liver.

Following a localized area of suppuration, such as follows a perforated gastric ulcer or appendix, the signs of a liver abscess may become manifest as long as six weeks to two months later. This is due to a direct extension of an infection from the subdiaphragmatic space into the liver or to a metastasis from a pelvic abscess. While these abscesses are often multiple, occasionally they are single.

Liver Abscesses in Generalized Sepsis. In these cases the abscesses were small and multiple and of little consequence clinically when considering the entire picture. The general clinical features of sepsis with bacteremia predominated and there were no clinical signs of localized lesions in the liver. It is well to remember, however, that if life is prolonged, or if the original focus of infection heals, a liver abscess may arise as a result of a metastatic lesion such as is observed in rare instances of staphylococcal or streptothrix abscess of the liver. In the latter cases, the primary infection may be in the lung. Such a case has been reported by Bloomfield and Bayne-Jones[8].

Liver Abscesses due to Cholangitis. Abscesses arising in this way are not difficult to understand. In the cases studied, they were invariably accompanied by obstruction of the biliary passages resulting from stones or carcinoma, rarely benign stricture. Jaundice and signs of a septic infection were the outstanding features.

Miscellaneous Group. These cases require little comment. The two cases of mycotic infection, one actinomycotic and the other streptothrix infection, arose in the former case as a metastatic lesion from the appendix; in the latter, as a part of a more widespread infection. In the cases with hydatid disease, the cyst became infected, resulting in an abscess of the liver.

Multiple tuberculous abscesses of the liver may accompany such lesions as Hodgkin's dis-

ease or metastatic carcinoma. In such cases, tuberculosis may not be present in the primary lesion. In one case of multiple liver abscesses associated with hepatic cirrhosis the patient had a carcinoma of the stomach as the portal of entry.

Bacteriology. Bacteriologic examinations were made in thirty-two cases. The results are summarized in table 2.

TABLE 2

RESULTS OF BACTERIOLOGICAL EXAMINATION OF 32 LIVER ABSCESSES

B. Coli	13
Streptococcus hemolyticus	7
Staphylococcus aureus	9
Bacillus proteus	1
Entameba histolytica	9
Actinomyces bovis	1
Bacillus tubercul.	1
Pneumococcus	1
Streptothrix	1
Bacillus typhosus	2

In some cases the infection was mixed, in others one organism was the cause of the infection. As a rule, pus obtained from an amebic abscess does not yield a growth on ordinary bacteriologic culture media unless there is a mixed infection, which occurs in from about 15 to 20 per cent of the cases which have not been operated upon and drained. It is of some diagnostic significance, then, if the pus from a liver abscess is sterile. In such circumstances examinations for amebae should be carried out diligently.

Symptoms and Signs. The symptoms of liver abscess, whether single or multiple, were those commonly seen in any septic infection with fever; namely, occasional or frequent chills, sweating, malaise, loss of weight, prostration and leucocytosis. Accompanying these phenomena were localized signs or symptoms or liver disease or one of its complications. Prominent ones were hepatic enlargement, deep-seated pain in the hypochondrium, elevation of the diaphragm, unilateral or bilateral friction rubs over the liver, jaundice, pain over the shoulder, signs of localized or generalized peritonitis, pleural empyema or lung abscess.

Complications. The various complications recorded are summarized in table 3.

From this table, it is observed that the commonest complications of liver abscess are due to direct extension of the abscess beyond the liver capsule, or to metastases through the hepatic veins. Thus, an abscess may extend to the peritoneum, subphrenic space, lung, pleura, or perforate the stomach, transverse colon or pericardium. As a result of metastases from the liver via the hepatic veins, lung abscess, endocarditis or brain abscess may be observed. Aside from the complications recorded, bronchobiliary fistulae may also occur.

When the liver abscess perforated into the colon or stomach, it produced a hemorrhage which was sometimes fatal. When perforating into the lung, a lung abscess or a profuse hemoptysis took place. The lung abscesses occurred with or without empyemata, just as empyemata occurred without lung abscess. It was not a little surprising in one case that a liver abscess produced obscure symptoms and signs, even leading to amyloid disease before it was detected.

TABLE 3

COMPLICATIONS OF LIVER ABSCESS

(1) Lung Abscess		7
Extension	4	
Metastatic	3	
(2) Peritonitis		7
(3) Subdiaphragmatic Abscess		5
(4) Pelvic Peritonitis		3
(5) Pulmonary Infarct		1
(6) Brain Abscess		3
(7) Pleural Empyema		2
(8) Hydrothorax		2
(9) Transverse Colon Fistula		2
(10) Perforation of Stomach		1
(11) Pericarditis		2
(12) Endocarditis		1
(13) Amyloid Disease		1

Peritonitis complicating liver abscess may be localized in the subhepatic region or it may become more widespread or generalized, the former being more common.

Diagnosis. From a study of these eighty-five cases, it is evident that the diagnosis of liver abscess may be based upon one or more of the following conditions: (1) The recognition of a possible source of infection. (2) The signs of a septic infection: fever, chills, sweats, malaise, loss of energy and weight, and leucocytosis. (3) Localized signs of liver disease, such as hepatic enlargement, deep-seated pain in hypochondrium, elevation of the diaphragm, unilateral or bilateral friction rubs over liver, and icterus. (4) Presence of a complication of a sort that arises from a liver abscess.

Summary and Conclusions. From a study of eighty-five cases of liver abscesses proved by necropsy the following points were elucidated:

1. Abscesses of the liver are most commonly the result of a primary infectious process in the area drained by the portal vein. There may or may not be pylephlebitis. The other modes of infection are direct extension into the liver from an area of suppuration arising in a neighboring organ, or an extension of infection through the bile ducts. Multiple liver abscesses may also arise as metastases in the course of a generalized sepsis.

2. Multiple liver abscesses are more common than single ones.

3. The symptoms and signs are dependent upon a septic process with localizing signs of hepatic disease or its complications.

4. The sources of infection and the complications of liver abscesses are tabulated and discussed.

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ENDOMETRIOMA OF BARTHOLIN'S GLAND

BY CHRISTOPHER J. DUNCAN, M.D.*

THIS report is prompted first because a careful search of the literature reveals no reported case of endometriosis of Bartholin's gland (in a personal communication Dr. J. A. Sampson said he had never seen or heard of a case), secondly because the development of the disease in this instance strongly supports the implantation theory.

Four theories have been advanced to explain the origin of endometriomata: congenital displacement of Wolffian or Müllerian tissues, serosal metaplasia and implantation of fragments of endometrium. Von Recklinghausen found that adenomyomata were most commonly found in the posterior uterine wall and the inner ends of the tubes. Since remnants of the Wolffian tubules are also found often in the same locations he argued that adenomyomata were remains of the Wolffian system. Later Cullen showed that these tumors developed from inclusions from the endometrium. The "Müllerian Rest Theory" which followed was based on the fact that in the embryo the anlage of the ovary is near that of the Müllerian duct. It was felt that an interchange of cells from one anlage to the other might occur. The "Serosal Metaplasia Theory" is based on the fact that the endothelial cells of the peritoneum, under the stimulus of inflammation, often undergo changes in type. The German writers hold this view, as does Novak, who points out that the peritoneum and genital epithelium have a common origin in the coelomic mesothelium.

Sampson's name has been practically synonymous with endometriosis since 1921, when he first published his work on "Perforating Hemorrhagic (Chocolate) Cysts of the Ovary." He believes that uterine or tubal epithelium may be regurgitated into the peritoneal cavity during menstruation and there penetrate the tissues on which it comes to rest, setting up secondary growths which increase with each menstrual cycle. This so-called "implantation theory" was further developed from the work of S. H. Geist, who was able to prove that endometrial fragments, desquamated at the time of the normal flow, were small enough to pass through the tube and, also, that these fragments were made up of living cells. Geist took cells from menstrual fluid which had been drawn through a pipette one-third the size of a normal tube and stained them supravitally. In these cells he was able to demonstrate stained granules, greenish to brown in color, within the cytoplasm, indicative that the cells were living. This work demonstrates that the theory of Sampson is a possible explanation of endometriosis.

Bartholin's gland develops, as does its homologue in the male, Cowper's gland, from the dorsal wall of the pars pelvina of the urogenital sinus. It is therefore entodermal in origin. Thus, from the embryological standpoint, the presence of endometriosis in it could be explained neither by the "rest" theories nor by metaplasia of the peritoneal serosa, but only by Sampson's transplant theory.

*Duncan, Christopher J.—Assistant Surgeon to Out-Patients, Free Hospital for Women. For record and address of author see "This Week's Issue," page 40.

FIG. 1. Very low power showing diffuse endometriosis. The squamous epithelium is that of the vestibule.

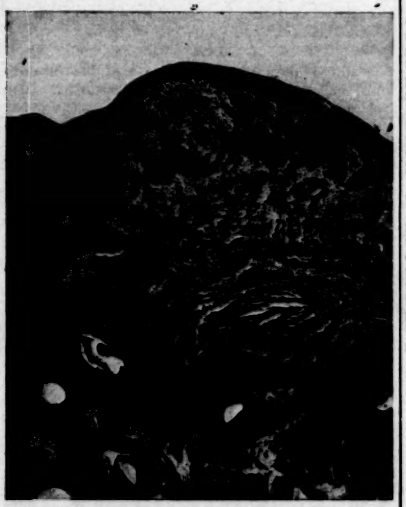

FIG. 2. Another area. There is very little stroma around the glands.

FIG. 3. Typical ectopic endometrium.

CASE REPORT

In November, 1931, patient C. B. applied at the Gynecological Out-Patient Department of the Boston City Hospital. She complained of a hard, painful mass on the left side of the vulva which had been troublesome for the past year and a half. The pain became worse periodically at the time of each menstruation and decreased after the flow stopped. Her past history was suggestive. Four years before the present admission she had an acute inflammation of the Bartholin's gland, at which time the gland was incised and drained. The day following operation she began to menstruate.

On examination a firm nodule, bluish in color, two centimeters in diameter, was found at the site of the left Bartholin's gland. The nodule was not tender and could be moved about freely in the tissues of the labium. A diagnosis of endometriosis of Bartholin's gland was made. Five days later the tumor was removed and on section presented the typical picture of endometriosis, as the accompanying photomicrographs show. It seems tenable that following the incision and drainage menstrual blood containing living endometrial cells penetrated the gland site and produced the tumor.

Dr. W. W. Boyd very kindly made the photomicrographs.

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CERTAIN FACTORS INFLUENCING THE MORTALITY OF SANATORIUM TREATED CASES OF PULMONARY TUBERCULOSIS

BY ALEXANDER D. LANGMUIR, A.B.,* SEIRIOL L. WILLIAMS, M.D.,* AND ALTON S. POPE, M.D.*

THE only objective method of estimating the effectiveness of sanatorium treatment of pulmonary tuberculosis is by continued systematic study of patients discharged from sanatoria. In the past such studies have been of limited value because of the difficulty of correcting for the many variables involved to make the data truly comparable. Numerous factors such as a standard of classification of the stage of the disease, actual stage of the disease on admission, duration of residence in the sanatorium, sputum examination, percentage of cases lost to view, and others, must be considered carefully before a study can have real significance or the results can be compared with those from other sanatoria.

In the present study we have endeavored to appraise some of these factors and although we have not applied actuarial procedure, we believe that the selection has assured a representative sample of the population under consideration and that the methods of analysis employed are sufficiently exact to bring out the fundamental importance of some of these factors.

In order to secure uniformity of types of cases, of diagnoses and treatments, the study has been limited to patients admitted to the Rutland State Sanatorium during 1925 and 1926. Some of these cases were drawn from all parts of Massachusetts, but the greater part came from Middlesex and Worcester Counties and from the Hospital District of Chelsea, Revere and Winthrop. Patients in all stages of the disease were accepted, and as a whole they may be considered a fair sample of tuberculosis cases in Massachusetts. The average duration of sanatorium treatment was about twelve months and about 25 per cent of the patients received pneumothorax. The condition of each case in the summer of 1931 was determined from the records of the local health departments and by interviewing the local tuberculosis nurses.

In the years 1925 and 1926, 977 cases were admitted to Rutland. In order to obtain a homogeneous group to study, a rigorous selection was made, and the following have been excluded:

1. All cases with revoked diagnoses.
2. All cases under 17 years of age.
3. All cases which had less than one month residence in the Sanatorium.
4. All cases which had had sanatorium treatment previous to the 1925 and 1926 admissions at Rutland.
5. All cases which had been suffering from the disease more than three years before admission.
6. All cases which died within three months of admission.

Altogether 471 cases have been excluded for these reasons.

Thus this study is based on 506 selected cases. Of these, 108 cases or 21 per cent could not be traced up to 1931. These "unlocated" cases are otherwise comparable and will be considered separately.

*Langmuir, Alexander D.—Class of 1935 Cornell University Medical School, New York City. Williams, Seiriol L.—House Officer, Montreal General Hospital, Montreal. Pope, Alton S.—Assistant Professor in Preventive Medicine, College of Physicians and Surgeons, Columbia University. For records and addresses of authors see "This Week's Issue," page 40.

TABLE I

DISTRIBUTION OF PATIENTS BY AGE AND SEX

Age	Male		Female		Total	
	No.	%	No.	%	No.	%
17-25	64	34%	91	43%	155	39%
25-39	76	41%	96	45%	172	43%
40-+	46	25%	25	12%	71	18%
Total	186	100%	212	100%	398	100%

Table I shows that there is a slight preponderance of females in the group studied. The females average somewhat younger than the males, the latter having an average age of approximately 32 years, and the former 29 years. Such a difference is to be expected since the maximum incidence of tuberculosis in women averages earlier than in men.

TABLE II

STAGE OF DISEASE AS STATED ON APPLICATION AND AS DETERMINED ON ADMISSION TO SANATORIUM

Stage of Disease	Application Diagnosis		Admission Diagnosis	
	No.	%	No.	%
Minimal	147	36.9%	60	15.1%
Moderately Advanced	205	51.5%	130	32.7%
Advanced	38	9.6%	208	52.2%
Unclassified	8	2.0%	0	0%
Total	398	100.0	398	100.0

The wide variation shown in table II between the diagnosis of stage of disease stated on the application for admission, and that made at the sanatorium is a good illustration of the error likely to occur in the comparison of different groups of cases even with a standard

classification unless the diagnoses are made by physicians of similar training and experience. The interval between application and admission as determined from a random sample of cases varied from four to sixty-four days, with a median of seventeen days. Since delay in admission can be of no significance the discrepancies in diagnosis are evidently due to such factors as differences in standards of classification, lack of x-ray and laboratory facilities in the hands of many local practitioners, and a natural desire of the physician to encourage his patient and facilitate his admission to a sanatorium.

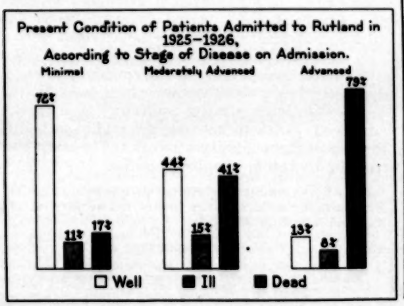
Table III shows the present condition in relation to the stage of disease on admission. Since it was found that there were no significant differences in the mortality of the males and females in the same stage of disease the sexes have been combined in one table.

TABLE III

PRESENT CONDITION ACCORDING TO STAGE OF DISEASE ON ADMISSION

Present Condition	Minimal		Moderately Advanced		Advanced	
	No.	%	No.	%	No.	%
Well	43	72%	58	44%	28	13%
Ill	7	11%	19	15%	17	8%
Dead	10	17%	53	41%	163	79%
Total	60	100%	130	100%	208	100%

From the prognostic standpoint table III affords objective evidence of the validity of the classification of pulmonary tuberculosis prepared by the American Sanatorium Association. The wide spread in mortality between the minimal and the advanced cases demonstrates how fundamental the stage of disease is in interpreting the results of any follow-up study of tuberculosis. As the ratio of advanced to minimal cases varies in every sanatorium the gross mortality figures have not been printed because it is believed they have no significance and may be misleading.



The relationship of the stage of the disease on admission to the subsequent recovery or death is graphically shown in the accompanying diagram.

TABLE IV

PRESENT CONDITION ACCORDING TO STAGE OF DISEASE ON ADMISSION AND DURATION OF SANATORIUM TREATMENT

Duration of Treatment:	Less than 6 Mos.		6 to 12 Mos.		1 to 2 Yrs.	
	No.	%	No.	%	No.	%
			Minimal			
Present Condition						
Well	31	91%	10	59%	2	22%
Ill*	0	—	5	29%	2	22%
Dead	3	9%	2	12%	5	56%
Total	34	100%	17	100%	9	100%
			Moderately Advanced			
Well	16	37%	21	47%	19	53%
Ill*	5	12%	7	15%	6	17%
Dead	22	51%	17	38%	11	30%
Total	43	100%	45	100%	36	100%
			Advanced			
Well	5	6%	5	9%	12	24%
Ill*	2	2%	1	2%	11	22%
Dead	77	92%	51	89%	27	54%
Total	84	100%	57	100%	50	100%

*Includes all cases ill at home, in sanatorium in 1931, and alive but condition unknown.

Table IV shows that in the two advanced groups, recovery is positively associated with the duration of treatment in the sanatorium. This correlation is not found in the minimal group because the few early cases which did not respond well to treatment are naturally the ones likely to spend longer periods in the sanatorium.

Among the minimal and moderately advanced cases in table V those with a negative sputum or no sputum while in the sanatorium have fared better than those with a positive sputum. Our figures show no obvious relationship between the presence or absence of tubercle bacilli in the sputum and recovery in the advanced group, a finding consistent with Macnalty's experience at the Frimley Sanatorium.

UNLOCATED CASES

One of the most distressing obstacles to critical follow-up studies of sanatorium cases is the considerable group who for one reason or another cannot be traced. Such cases may or may not be representative for the group, but if they are essentially different and constitute any considerable proportion of the whole they may seriously distort the entire picture.

In this study the unlocated cases make up about one-fifth of the sample taken. Except for the fact that they could not be traced to the end of the period of observation, they comply with the criteria of selection of the main group.

One important difference is shown in table VI.

TABLE V

PRESENT CONDITION ACCORDING TO PRESENCE OR ABSENCE OF TUBERCLE BACILLI IN THE SPUTUM

Present Condition	Minimal				Moderately Advanced				Advanced			
	Negative		Positive		Negative		Positive		Negative		Positive	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Well	38	81%	5	38%	31	45%	27	44%	12	14%	16	13%
Ill	4	9%	3	23%	13	19%	6	10%	8	9%	9	7%
Dead	5	10%	5	39%	25	36%	28	46%	66	77%	97	80%
Total	47	100%	13	100%	69	100%	61	100%	86	100%	122	100%

From this comparison it is obvious that a much larger proportion of the unlocated cases were in an early stage of the disease when they entered the sanatorium. This is borne out by the additional fact that a greater proportion were discharged in an arrested or quiescent condition. The untraced group in this instance consists largely of a selection of the more favorable patients who on account of their condition have been able to return to a normal life and for that reason have been lost sight of by the local health departments. Had it been possible to include them in the main group a somewhat lower mortality rate would have resulted.

TABLE VI

STAGE OF DISEASE ON ADMISSION IN MAIN GROUP AND IN UNLOCATED CASES

Stage of Disease	Unlocated Cases		Main Group	
	No.	%	No.	%
Minimal	36	33%	60	15%
Moderately Advanced	45	42%	130	33%
Advanced	27	25%	208	52%
Total	108	100%	398	100%

COMMENT

The significant relationship between the stage of tuberculosis at the time of the patient's admission to a sanatorium and the subsequent course of disease has been clearly indicated in table III. Even with the recent marked improvements in therapy, the one thing which most influences recovery in pulmonary tuberculosis is the stage of the disease when treatment is begun, and until much greater progress has been made in case finding, measures which facilitate earlier diagnosis can be depended upon to produce greater saving of life than all other efforts in tuberculosis control.

The economic importance of early diagnosis and prompt initiation of sanatorium treatment is suggested by the data in table V. The average length of stay of the minimal cases was 217 days, of the moderately advanced and advanced cases about 320 days each. At a cost per patient of $17.50 per week a saving is effected of approximately $250.00 per minimal patient, or for a given population only two-thirds as many sanatorium beds are required if the cases of tuberculosis can be found in a minimal stage.

CONCLUSIONS

In a selected group of 506 tuberculosis patients first admitted to Rutland State Sanatorium in 1925 and 1926, an attempt has been made to evaluate some of the factors which have influenced the subsequent mortality.

1. The wide variations in classification of the stages of the disease as stated on the application for admission and as determined at the sanatorium, clearly demonstrate the errors involved in any direct comparisons of results of treatment in tuberculosis cases, classified by different groups of physicians using different facilities and varying standards of classification.

2. The outstanding factor in the determination of mortality from pulmonary tuberculosis is the stage of the disease when treatment is begun. In the present series the mortality at the end of five years was 17 per cent in the minimal and 79 per cent in the advanced cases.

3. The mortality in the moderately advanced and advanced cases varied inversely with the duration of treatment in the sanatorium.

4. Minimal and moderately advanced cases without tubercle bacilli in the sputum showed a distinctly lower fatality rate than cases in the same stage with positive sputum. Among the advanced cases there was no significant difference in the mortality between the sputum positive and sputum negative groups.

Our obligation is gratefully acknowledged to Dr. Ernest B. Emerson for the use of his records at the Rutland State Sanatorium.

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UTERINE BLEEDING FROM A NEEDLE IN THE UTERINE CERVIX

BY HILBERT F. DAY, M.D.*

THE following case had, I believe, a unique reason for uterine bleeding. As we all know, the most common causes for uterine bleeding in a woman between fifty and sixty are cancer and uterine polypus, particularly when there is no enlargement of the uterus.

Mrs. M. W. C., aged 57 years, widow, a resident of Maine, gave the following history:

FAMILY HISTORY

Father died of tuberculosis.
Mother died of "shock" at age of 80.
Two sisters living.
One brother died in military service.

PAST HISTORY

As a child had measles, whooping cough, chicken pox, mumps.
No serious illness in adult life.
No serious accidents.
Catamenia: matured at 17 years. Menopause at 48 years. Married at 30 years. Had three children, one miscarriage.
1st pregnancy 1907—operative delivery.
2nd pregnancy 1909—operative delivery.
3rd pregnancy 1911—normal delivery.
Operation in 1909 after second delivery—repair of cervix and repair of cystocele.

PRESENT ILLNESS

Patient says that perineum is absent because when she strains there is a bulging; also, has had discharge (leucorrhea). For the past three months there has been a little bloody color to the discharge off and on.

PHYSICAL EXAMINATION

Weight—152¾. *Height*—5 ft. 4½ in. *Blood pressure*—118-80.
Urine—0 sugar. 0 albumin.
Good-sized woman with greying hair and blue eyes.
Teeth—show much dentistry, several capped teeth.
Tongue—clear. *Throat*—tonsils present.
No signs of anemia. Hemoglobin—75 per cent.
Breasts—normal.
Heart—area normal, action regular, sounds clear, no murmurs, rate 84.
Abdomen—slightly prominent, no masses, no points of tenderness found.
Pelvic—inspection shows a large cystocele which protrudes through a repaired perineum which gives poor support. Uterus also descends nearly two inches. Patient has a small urethral caruncle. Cervix appears absolutely normal, although repaired, having a scar on both sides. There is slight bleeding from the cervix.

I first thought after this examination that in all probability this patient had a beginning carcinoma of the uterus. Despite the fact that I could not see a polyp, I felt that I could not rule out the presence of one. My original plan was that the patient should have a dilatation and curettage with frozen section examination of the curettings, and that my further procedure should be guided by that report. On second thought I decided that even with a pathological report, unless positive, I would not be confident that I had found the cause of the bleeding. I decided to do a vaginal hysterectomy.

OPERATION

February 12, 1933. (Anesthesia—gas-ether.)
Bladder separated and stripped upwards. Peritoneum opened and uterus pulled forward and out. Broad ligaments clamped and cut away from uterus, then uterosacral ligaments. Uterus removed, ligaments tied off and tied together, forming a pelvic floor. Peritoneum closed. Sponge count reported correct. Cystocele then repaired; after that perineorrhaphy was performed. Patient stood the operation very well and left the table with a pulse of 85.

Operation: Vaginal hysterectomy. Repair of cystocele and rectocele.

Specimen sent intact to Dr. J. Stewart Rooney, the pathologist, who reported as follows:

"Specimen consists of a uterus including the cervix measuring 6 cm. in length and 3.5 cm. in diameter. On section through the wall of the uterus there is found to be some increase in fibrous tissue, but aside from this it presents nothing unusual in its appearance. The uterine canal is patent. The endometrium is atrophic and is tan in color. Sections through the region of the cervix show the tissue about the region of the internal os to be fibrosed. The cervical canal below the internal os is patent. In one portion of the cervix just beneath the mucosa lining the cervical canal, there is a curved needle which has been broken. The needle shows marked corrosion. The tissue adjacent to the needle is composed of *very dense fibrous tissue.*

"Sections microscopically through the wall of the uterus show some increase in fibrous tissue, but aside from this it presents nothing unusual in its appearance. The endometrium is atrophic. It contains a few glandular structures all of which are lined with normal epithelium. The adjacent stroma shows moderate round cell infiltration. In order to preserve the specimen intact no sections are taken from the region of the cervix.

"Diagnosis: Fibrous uterus; atrophic endometrium; foreign body in cervix."

*Day, Hilbert F.—Clinical Professor of Surgery, Tufts College Medical School. For record and address of author see "This Week's Issue," page 40.

Summary of postoperative notes: Patient remained in hospital two weeks, had no postoperative febrile reaction, made a very comfortable convalescence.

April 1, 1933—Examination in my office. Patient has come back to the weight she had on her first visit. Her general condition is excellent. Local examination showed no prolapse when she strains. Wound well healed, small vagina.

May 1, 1934—Report from patient. "Well, no troublesome symptom."

From the pathological report and photograph, we are able to show the cause of this woman's slight uterine bleeding—a foreign body in the cervix. In fact, a needle which had worked its way finally into the cervical canal and was causing moderate irritation. One of the interesting facts in this case is that the operation which was performed on this patient followed her second delivery in 1909, and the piece of needle which we discovered at this time, and which is shown in the drawing, must have stayed in the uterine tissue all of these years and must not have been displaced by her third delivery which followed a year and a half after her operation. The surgeon who operated on this case twenty-four years ago has been dead for a number of years and, therefore, the reporting of this case can do harm to nobody and does increase the number of published possible causes for uterine bleeding.

Arrow indicates portion of rusty needle.

MORTALITY RATES

Telegraphic returns from 86 cities, with a total population of thirty-seven millions for the week ending June 16, indicate a mortality rate of 10.3 as against a rate of 10.6 for the corresponding week of last year. The highest rate (21.0) appears for El Paso, Texas, and the lowest (3.2) for Schenectady, N. Y. The highest infant mortality rate (16.4) appears for San Antonio, Texas, and the lowest for Canton, Ohio, Dayton, Ohio, Duluth, Minn., Erie, Pa., Louisville, Ky., Lowell, Mass., New Haven, Conn., Richmond, Va., San Diego, Calif., Tacoma, Wash., Utica, N. Y., and Yonkers, N. Y., which reported no infant mortality.

The annual rate for 86 cities is 12.2 for the twenty-four weeks of 1934, as against a rate of 11.6 for the corresponding period of the previous year.

SUMMARY OF DEATHS AND DEATH RATES (ANNUAL BASIS) FROM AUTOMOBILE ACCIDENTS PER 100,000 ESTIMATED POPULATION FOR 86 CITIES FOR CORRESPONDING PERIODS OF 1934 AND 1933

	Week ending		First 24 weeks	
	June 16, 1934	June 17, 1933	1934	1933
Total deaths	144	149	3,771	3,316
Death rate	20.1	20.8	21.9	19.3
Deaths due to accidents in city	125	116	3,045	2,654
Death rate	17.4	16.2	17.7	15.4

—*Bureau of the Census.*

FIBULA RESECTION IN CERTAIN ANKLE DEFORMITIES

BY FREDERIC JAY COTTON, M.D.,* AND GORDON MACKAY MORRISON, M.D.*

IN cases resulting from direct falls on the heel we may get much comminution of the lower end of the tibia with little or no damage to the fibula.

These are the class IV cases of the *working classification* of ankle fractures, brought out some years ago, now more or less familiar.

With the serious problems of treatment of the tibial fracture, or with the later trimming of excessive remains of the tibia to clear motion, we are not here concerned. The item here is the clearance of the obstruction due to contact of the fibula, overlong for the tibia, with the outer side of the tarsus. Uncorrected, this gives not only pain, but loss of lateral motion, and often enough an inward (varus) twist to the foot. Correction is simple, and it works. The obvious answer is shortening of the fibula above the joint level. This works less well than it should, because it is hard to bring the external malleolus up where it belongs, and to hold it.

Easier is the radical sounding resection of the *whole* external malleolus, subperiosteally.

In no case has there been any resulting lateral instability or weakness from such resection, or any traceable interference with the function of the peroneal tendons.

TYPE IV.

Deformity after ankle fracture of type IV.
The shortened tibia leaves a relatively long fibula in abnormal contacts.
The shaded portion indicates the bone removed (subperiosteally) to clear such contacts.

The technique needs no more description than the accompanying illustration furnishes. One leaves just enough bone for a check at the outer side of the joint. Enough of the malleolus reforms, but, oddly enough, not too much.

*Cotton and Morrison—For records and addresses of authors see page 817, issue of April 12, 1934.

CAMPAIGN AGAINST CRIMINAL "ACCIDENTS"

Casualty insurance adjusters throughout the country are fast mobilizing in the nation-wide campaign against the claim fraud army with its cohorts of ambulance chasing lawyers, dishonest doctors, "accident" workers, professional witnesses, and jury bribers.

A survey just completed by the Claim Department of the National Bureau of Casualty and Surety Underwriters reveals that there are today 45 active associations of the claim forces in the larger cities of 26 states, with more in the process of formation.

Each has complete organization with a definite program. They are in contact with the police authorities, bar associations and medical societies, the Index Bureau of every section, and all organizations devoted to the suppression of crime.

Many of the associations now are operating under a constitution prepared for them by the Claim Department of the National Bureau. Eligible for membership are the following: any department head, adjuster, investigator, attorney, or other person who is actively engaged in the handling or adjusting of casualty claims either for insurance companies or for self-insurors.

Some of the work done, in addition to the exchange of necessary information, has been of great assistance to the companies. For instance, in Philadelphia, the Bureau Claim Association has made an agreement with the medical society for the handling of that phase of claims. In others, they have met with bar associations for the investigation of lawyers who are considered to be violating the code of ethical practice.

All associations are kept informed of the appearance of particular claim fraud bands in their localities, and in turn they forward all information that comes to them to Index Bureaus.

Whenever companies combine to attack a particularly bad situation, such as in Massachusetts, New Jersey or St. Louis, the adjusters' association promptly becomes actively identified with the movement. As all of these men are experienced the companies are able to avail themselves of the services of a great fighting force almost at a moment's notice.—*Safety Engineering*, June, 1934.

RABIES IN MASSACHUSETTS IN 1934

3,563 Dog-Bites Reported in Less than 6 Months
162 Dogs, 3 Cats and 2 Cows Had Rabies
One Human Death from Rabies

1. Report all dog-bites to your board of health.
2. *Start Antirabic Treatment at Once.*
   If bite is on face, head or neck, regardless of health of dog.
   If dog is rabid, and patient bitten or exposed.
   If dog is lost or killed within ten days of bite.
3. Treatment may wait otherwise on observation of dog.
4. Use 21-day treatment for bites on face, head or neck and for severe lacerations.

Vaccine Provided Free by Patient's Board of Health.

THE MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH.

CASE RECORDS
of the
MASSACHUSETTS GENERAL HOSPITAL

ANTE MORTEM AND POST MORTEM RECORDS AS USED IN WEEKLY CLINICAL-PATHOLOGIC EXERCISES

EDITED BY RICHARD C. CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 20271

PRESENTATION OF CASE

A seventy-four year old single Irish housekeeper entered complaining of abdominal pain of twenty hours' duration.

Approximately twenty hours before admission the patient suddenly vomited and almost immediately afterward was seized with pain in the left lower quadrant. A physician gave her a hypodermic injection. This helped somewhat, and a second injection enabled her to sleep through the night. She vomited intermittently from the onset of the abdominal pain until admission. The vomitus consisted first of food and then of greenish material, but no blood. Two hours before admission a nurse attempted to give her an enema, but this aggravated the pain so much that it had to be given up. Her physician gave her another hypodermic injection and sent her to the hospital in an ambulance. Her last bowel movement was eighteen hours previous to entry and was not unusual.

The patient had always been chronically constipated and required regular catharsis. During the past few years she had noticed a "peculiar sensation" in her left lower quadrant which she did not characterize as pain. She had urinated two or three times at night during the past few years. This may be discounted somewhat by the fact that she had to care for an invalid sister who awoke her frequently at night. She had no epigastric pains between meals, but occasionally had chronic gas and belching. There had been no recent weight loss.

The family history is non-contributory.

Physical examination showed a fairly well nourished elderly woman with marked pallor. She appeared somewhat stuporous. The pupils were well contracted. The teeth were false. Examination of the chest was negative. The blood pressure was 110/60. Abdominal examination showed definite spasm over the left lower quadrant. There was tenderness in both lower quadrants, especially over the descending colon at the level of the umbilicus. Because of the marked spasm it was impossible to examine for masses. Pelvic examination showed tenderness in both vaults. The lower liver could be percussed, but it merged into a resonant note just above the costal margin.

The temperature was 100°, the pulse 86, the respiration 20.

Examination of the urine was negative. The white blood cell count was 8,000.

An x-ray film taken in the Emergency Ward showed a large amount of gas beneath each diaphragm. Very little gas was seen in the intestinal tract.

An exploratory laparotomy was performed.

X-RAY INTERPRETATION

DR. GEORGE W. HOLMES: This film was taken to show the presence or absence of free air in the abdominal cavity. Here you see the shadow of the liver, above it the diaphragm and between them a white space,—positive evidence of free gas in the abdominal cavity.

A film taken of the chest with the patient lying on her back shows a rather high diaphragm on both sides and changes at the root of the lung which may be due to compression of the lung from the high diaphragm. There is nothing to account for her symptoms.

A plain film taken of the abdomen shows nothing definite; some gas in the bowel, but no lead as to where the free gas came from.

DIFFERENTIAL DIAGNOSIS

DR. RICHARD H. MILLER: This is a seventy-four year old woman with a fairly definite history. One naturally thinks of some type of carcinoma in the abdominal cavity. When we have the evidence which has already been presented we know there is free air and there must have been perforation. One immediately jumps to the conclusion that this old lady had a malignant process which for some reason or other perforated.

Before reaching a final conclusion let us consider two or three things that were brought out in the history. In the first place she has been pretty well during the past years. There has been no increasing constipation. This would perhaps militate against malignancy, because usually malignancy on the left side does cause some increase in constipation or other change in the bowel habits.

She had a "peculiar sensation" in the left lower quadrant. That in itself does not point to anything definite, and yet if one had a patient come to one's office with that complaint one would immediately think there was something in the descending colon or sigmoid and would investigate by enema and examination of the stools.

She suddenly had vomiting followed by pain. I do not think the fact that the vomiting came first is of any significance at all, but the pain was very sudden in onset. We ordinarily think of extremely sudden pain in the abdomen as

evidence of perforation. That is not always true, because I have seen a young man with an acute appendix drop to the floor with a pain which began as acutely as though he had been stabbed with a knife. Furthermore, an acute intestinal obstruction may come on with symptoms that are almost as acute as that. One has also to take into consideration that the term "sudden onset" is a relative one; what one person might call a very acute beginning another person might not look upon as such. In any event we will assume that this was fairly acute. I should say that this pointed toward perforation or the sudden shutting down of the bowel in the form of a complete obstruction.

The next thing that is of interest is the fact that the nurse attempted to give an enema and the enema aggravated the symptoms so much that it had to be discontinued. That is not a thing that I have encountered often enough to talk about it with any familiarity. I have seen cases without perforation in which an attempt to give an enema distended the bowel to such an extent that a very nervous patient did not like it. In this case, however, if one thought it was a perforation one might go on and say the enema went out through the perforation and was scattered throughout the abdominal cavity, increasing the symptoms. It is a little hard to interpret the fact that she had a normal bowel movement two hours after the onset of the symptoms. One might say that it was material which had collected in the rectum and lower sigmoid and had not in any way been affected by the process which was going on above.

In an elderly patient of this sort one would have to consider not only malignancy but the second great cause of acute pain in the left lower quadrant, which is diverticulitis, a condition notably common in elderly people. Diverticulitis may act more or less like an acute appendicitis and give rise to acute symptoms with abscess formation and the development of a mass. Very probably there is nothing else in the left lower quadrant common and important enough to be considered seriously. Anything like a stone in the ureter would be so unusual that one could discard that diagnosis. Similarly, anything in the tubes or ovaries could, I think, equally well be put aside. So that I should come at once to a diagnosis of either a malignancy which had perforated, or possibly an acute diverticulitis which had formed an abscess and that had perforated, the second being less common and probably not the situation here.

In regard to the physical examination there is nothing which requires particular comment. There is definite spasm in the left lower quadrant, tenderness in both lower quadrants, especially over the descending colon at the level of the umbilicus, and the rest is not particularly relevant.

The temperature was elevated, as would naturally occur if a patient had peritonitis. One would think that the white cell count of 8,000 was evidence of lack of much resistance to this process. It suggests that the prognosis would be bad.

The x-ray film, as I said in the beginning, clinches the diagnosis of perforation.

I should say that this woman had a carcinoma of the descending colon or upper sigmoid with sudden perforation and general peritonitis with the accumulation of gas in the abdominal cavity.

Clinical Discussion

Dr. Tracy B. Mallory: If there are no other suggestions as to diagnosis perhaps Dr. Faxon will tell us what he found at operation.

Dr. Henry H. Faxon: I should like to ask Dr. Miller a question. Granting the story as given—what would you have done? Where would you have made your incision?

Dr. Miller: As I think it over, I believe my reaction would have been not to operate on her; but if I had had to, it would have been in the left lower quadrant.

Dr. Faxon: She was an extremely sick looking person. Several of the house officers thought the wise thing was to Ochsnerize her and let her take her chances on that basis. The other camp felt that if any operative procedure were to be done it should be attempted without delay. My diagnosis had been perforated diverticulum, and the symptoms were considered to arise from a combination of the obvious rupture into the peritoneal cavity and a certain amount of false bowel obstruction. It was thought the wisest thing to do was make a McBurney incision in the left lower quadrant under local anesthesia and see if we could confirm our diagnosis and drain that side. That is what we did. I was pretty sure from her general appearance that she would not tolerate a large incision and extensive exploration.

The omentum was down in the left lower quadrant. It was thick and fatty and we could not be sure that there was no mass. We could see the large bowel and it seemed somewhat distended. There was a quantity of cloudy fluid that welled up from the pelvis when the abdomen was opened. I should like to ask Dr. Miller what he would have done next.

Dr. Miller: I should have put in a drain and stopped.

Dr. Faxon: I put in two drains. I felt that as far as I had gone the diagnosis was at least fairly well confirmed. I thought that the bowel was dilated and that she had a certain number of obstructive symptoms as well as those of peritoneal irritation. To correct these further I made a McBurney incision on the right and inspected the cecum. It certainly was not di-

lated and I could not see any point in going ahead with a cecostomy simply because I had cerebrated in that direction, so I put two wicks down into the pelvis. By this time we were a little more at sea than we were when we started. One thing that had impressed us was that when we opened the abdomen there was no odor of colon bacillus to the free cloudy fluid. We smeared it and were unable to demonstrate any colon bacilli. I assumed that if it had been a perforated large bowel from malignancy or from a diverticulum we should have been able to identify colon bacilli in the free fluid.

DR. MILLER: One would certainly think so.

DR. FAXON: At this stage in the game the troublesome thought came to our minds: was the fluid duodenal contents from a perforated duodenal ulcer? We weighed the evidence pro and con as to examining the upper abdomen. Having gone so far and still not being satisfied that we were dealing with perforated large bowel, I thought since I had committed myself to an operative procedure I should open the upper abdomen. This I did under novocain. The stomach and duodenum were perfectly normal, so I closed this incision without drainage. I had two cigarette wicks in her two lower McBurney incisions, right and left. The diagnosis was still in doubt in my mind at the end of the operation.

DR. MALLORY: I think we all have to admit that the exploration was as thorough as possible.

DR. FAXON: At the very start I seriously considered whether I should do an extensive exploration under a general anesthetic, but when I saw the patient I decided that she would not stand such an operation. What I did was rather piecemeal, but I think it was thorough.

FURTHER HISTORY

The patient had a small amount of distention postoperatively and some peristalsis. On the fifth day after operation she began to vomit small amounts. Twenty-four ounces of material was aspirated from her stomach with much relief. That evening she became more distressed. The abdomen was moderately distended. Peristalsis was not remarkable. A film showed no free gas below the diaphragm. The right apex was dull and the border of the right lung appeared to be separated from the axillary border. The findings were very suggestive of a right pneumothorax. She rapidly went downhill and died six days after admission.

FURTHER DISCUSSION

DR. MILLER: Shall I go on from here?

DR. MALLORY: If you can.

DR. MILLER: Of course the thing I cannot understand as long as I stick to my original diagnosis is that there was no odor. Still, I will stick to that idea, not knowing how to explain the absence of odor. I think it is a malignancy low down on the left.

CLINICAL DIAGNOSES (FROM HOSPITAL RECORD)

General peritonitis.
Carcinoma of the sigmoid.
Bronchopneumonia.

ANATOMIC DIAGNOSES

Diverticulitis of the sigmoid, perforated.
General peritonitis.
Multiple diverticula of duodenum, jejunum, ileum and colon.
Hydronephrosis, slight.
Operative wounds, three abdominal laparotomy wounds.

PATHOLOGIC DISCUSSION

DR. MALLORY: The autopsy showed a number of peculiar conditions. She had a great many diverticula, but the great majority of them were in a very unusual place. They were found running up and down the ileum, by and large the last place for diverticula. She had several in the jejunum. She had one very small diverticulum a quarter of a centimeter in diameter in the sigmoid, and that one had perforated. In retrospect I think undoubtedly the relatively thin clear fluid in the abdominal cavity was enema water.

I think it would have been nearly impossible to recognize the condition as diverticulitis from the inspection of the sigmoid at the time of operation, because ordinarily diverticula are multiple and large and in this case there was only a single one. If the omentum had been thoroughly pulled away possibly the perforation would have been found.

DR. MILLER: You still think the perforation took place before the enema was given?

DR. MALLORY: I should imagine that it started before the enema and was thoroughly and completely finished by giving the enema.

DR. MILLER: I never have happened to see a diverticulum perforate and give rise to a general peritonitis before. It may occur. I should like to ask Dr. Jones what his observations have been.

DR. DANIEL F. JONES: Fortunately they are very often in the pelvis and therefore are localized to the pelvis, but I have seen several cases of general peritonitis from perforation of a diverticulum.

In this particular case you could not help but stick to something in the lower abdomen. I think with the pain—if you can believe your history—it ought not to have been a carcinoma, because she did not have colicky pains enough or trouble enough with gas to make you think it was merely obstructed. You rarely get a per-

foration due to malignant disease without a good deal of obstruction.

DR. FAXON: I think we might have made the diagnosis with the first incision in the left lower quadrant if I had felt that it was wise to disturb the omentum. When I found there was no special mass down there I felt that to disturb it might be the undoing of the one chance she had. It might have been over some perforation that I could not feel.

DR. JONES: The only answer I would make to that is that I myself feel that the reasoning was wrong in regard to the type of incision that was made. I think you can make a very large incision in the abdomen under novocain without doing the patient any harm. You can then find out something, while if you have a gridiron incision you can rarely find out anything. I would therefore advise that any exploration that is to be made should be through an incision which can be enlarged rather than through a gridiron incision, which is very difficult to enlarge. In other words you could have turned up the omentum, which you could not possibly do with a gridiron incision. I do not know how Dr. Miller feels about that, but I feel that a gridiron incision is one of the worst incisions for exploration.

DR. MILLER: I agree with that.

DR. JONES: Your hands are absolutely tied. You cannot go up or down or any other way, nor can you raise up the abdominal wall and look across as you can with a rectus incision.

CASE 20272

PRESENTATION OF CASE

First admission. A retired American commercial traveler seventy-nine years old entered complaining of anuria of thirty hours' duration.

The patient had been fairly well until two days before admission, when he returned from town exhausted. At three o'clock the next morning he began to have diarrhea and vomiting. He had several copious stools that morning as well as during that whole day. He vomited a large amount of light greenish fluid several times. The stools were all light brown in color and showed no trace of blood or mucus. He grew progressively weaker during the day, and that evening while at stool went into complete collapse. His pulse could not be obtained. He was cold and covered with perspiration. He was given a quarter of a grain of morphia and put to bed. His pulse soon came back to 64. His respirations were 22. The temperature was 98°. He was given more morphia and caffein. During this period, approximately thirty hours, he had not passed any urine.

During the past few years he had had some dyspnea on exertion, but no edema, cough or nocturnal dyspnea. His appetite had always been good and his bowel movements had always been regular without catharsis. He had been seen once two years before admission in the Outpatient Department for backache and shortness of breath. The prostate was found slightly enlarged; otherwise examination was negative. The urine was negative.

Physical examination showed an irrational, pale, thin old man lying flat in bed and complaining of dryness of his mouth. The skin showed evidences of extreme dehydration. The lips were dark red. The pupils were contracted and reacted sluggishly. The heart was slightly enlarged to the left. There was a moderately soft blowing systolic murmur, loudest at the aortic area. The blood pressure was 155/85. There was marked peripheral sclerosis. Rectal examination showed a moderately enlarged prostate; no nodules felt. The knee jerks were not obtained. The ankle jerks were obtained.

The temperature was 98°, the pulse 70, the respiration 16.

No urine was obtained at entry, even after the introduction of a catheter. The following day the urine showed a slight trace of albumin, five to ten white blood cells and three to five red blood cells. Examination of the blood showed a red cell count of 5,300,000, with a hemoglobin of 90 per cent and a white cell count of 16,000, 72 per cent polymorphonuclears. A Hinton test was negative. The nonprotein nitrogen of the blood was 90 milligrams. A stool examination was negative.

He was given fluids subpectorally and intravenously. He continued to be irrational at night, but improved. On the fifth day his nonprotein nitrogen was 36 milligrams. On the tenth day while still a little weak he was discharged to the infirmary of the institution for the aged where he lived. The discharge diagnoses were uremia, dehydration without intoxication and generalized arteriosclerosis.

History of interval. Nine months before his second admission he began to feel tired and weak. Seven weeks before admission because of this increasing weakness he was moved to the infirmary of the home for the aged. He was seen by Dr. Siscoe and according to the patient took digitalis until the day before admission. One week before admission he had a severe chill lasting two hours. There was no fever. The following day he had another shorter chill, and on the following four days several others. At the same time his abdomen began to swell. Anorexia developed, and he began to have diffuse cramp-like abdominal pains aggravated by enemas. The latter however helped the distention and made him feel somewhat better. He soon became nauseated, developed a foul breath and vomited about once daily during the

week before admission. His stools during the past seven weeks had been watery and light yellow in color. He never passed any black blood or tarry stools. His abdomen gradually increased in size and the pain became somewhat more severe. He ate nothing during the two days before his readmission.

Second admission, three years and a half after his previous discharge.

Physical examination showed a well nourished, moderately dehydrated old man. The skin and tongue were rather dry. The abdomen was markedly distended, and was tympanitic and tender throughout. Peristalsis was active.

The temperature was 99.8°, the pulse 90, the respiration 22.

Examination of the urine showed a specific gravity of 1.020 with a few casts. Examination of the blood showed a red cell count of 5,200,000 with a hemoglobin of 90 per cent and a white cell count of 12,900 with 79 per cent polymorphonuclears. The stools were small, liquid, light brown and showed a negative guaiac. The non-protein nitrogen was 33 milligrams.

A flat x-ray film of the abdomen showed no gas beneath the right diaphragm, but the right diaphragm showed unusual doming. Beneath the left diaphragm there was a large dilated splenic flexure which obscured the normal gas bubble of the stomach. What was taken to be a gas bubble of the stomach showed a fluid level.

Two days after admission he was transferred to the Surgical Service and a laparotomy performed.

Differential Diagnosis

Dr. Ernest M. Daland: I cannot connect the previous admission with the present one to any extent from this outline. It was nearly four years before he entered the hospital the second time. At that time he was seventy-nine. The story then was that he was an old retired business man who had been in town all day and came home feeling exhausted. At three o'clock he had an attack of vomiting and diarrhea which persisted all day. He came into the hospital at that first admission complaining of anuria. It seemed to me that the diarrhea and profuse perspiration accounted for his inability to pass anything via his bladder. At the first admission he was discharged with a diagnosis of uremia, dehydration without intoxication, and general arteriosclerosis. That is, the impression given at that time was that it was not an organic thing except possibly uremia.

At the second admission the story was quite different. Whereas at the first admission it was stated that the bowel habits were normal, here in the second admission we are told that he had had increasing constipation with anorexia and with distention. We are also told that he had been on digitalis for some time because of his general tiredness and weakness, but we are also told that he had had no peripheral edema and nothing to suggest that he had any disease of his heart at this time.

He had been getting more and more nauseated, developed foul breath and vomited once a day for the past week. He had never passed any black blood or tarry stools and the note is made on both admissions that the stools were light brown in color. I take it that that was put there to tell us that they were not dark and tarry. I think the light brown color means nothing in particular. His abdomen had increased in size and the pain had been more severe. I understand that he could not localize the pain to any particular part of the abdomen. He had eaten nothing for two days before coming in. He was distended. He had active peristalsis with pain. He had a white cell count of 12,900. He was vomiting.

The picture to me is one of obstruction without peritonitis. Active peristalsis and distention usually mean obstruction and not peritonitis. That white cell count goes with obstruction. It is not too high to be explained entirely by obstruction.

There is a note however that an enema was given with a good gas result but with an increased amount of pain. He began to have diffuse cramp-like abdominal pains aggravated by an enema. That to me means something in the pelvis that is abnormal.

I feel that he had a diverticulitis with a localized abscess in the pelvis without general peritonitis. Of course malignant disease must be considered, but we find on several stool examinations that there was no blood. The guaiac tests were negative. There is no history of the passing of blood. I think that if malignancy produced this amount of obstruction we should get a positive stool, whereas in diverticulitis we should not be so likely to get it.

I think the first note showed an enlarged prostate with no nodules. I do not believe that the prostate entered into the terminal picture.

His non-protein nitrogen was 33 milligrams, as compared with 90 milligrams at the first admission. There was no note made of any phthalein test at either admission, so I do not think we can judge the kidneys too critically just because he had a non-protein nitrogen of 90.

I feel he had diverticulitis with obstruction with a localized abscess, an enlarged prostate, and arteriosclerotic heart disease.

Dr. Tracy B. Mallory: Dr. Hayden, will you tell us your preoperative diagnosis and the findings at operation?

Dr. E. Parker Hayden: This patient was first seen at night by the resident, who found

him quite distended. The skin, however, showed evidence of wrinkling, and Dr. Hoyt decided to let him go over until morning, at which time I first saw him. He was a big fellow, rather fat, quite distended, and presented the appearance of intestinal obstruction. In the history the presence of chills was the only thing that did not fit in with that diagnosis, but with a history of loss of weight and malaise of nine months' duration I thought he had, in all probability, carcinoma of the descending colon with obstruction proximal to it. Dr. Leland saw him and concurred in this view. The patient was making very little fuss, and we felt that since he had been obstructed for several days and was standing it so well, it was best to replenish his fluids and operate the next day.

I operated on him the following morning. Rectal examination was negative. He had been passing gas by rectum, but despite that fact I felt he probably had an obstruction in the colon, not very low down, but up in the transverse or ascending colon. It therefore seemed wise to make an incision on the right side where I could pick up the cecum and put a tube in to relieve the obstruction. If by chance the obstruction was in the small intestine this incision would be satisfactory.

So I made an incision under local anesthesia at the border of the right rectus and opened the abdomen. There was no evidence of large intestine anywhere. I palpated upward and could not find the cecum but on lifting the abdominal wall I could see large intestine in the middle of the abdomen and could palpate it with my finger. It was tremendously dilated, and there seemed to be no chance of drawing it over so as to be accessible for enterostomy. I therefore closed the wound and made another incision on the left side at the lateral border of the left rectus, coming down on a loop of large intestine distended to a diameter of three or four inches. The serosa was separated in certain places from the pressure. I assumed that this was a loop of transverse colon and that it would be possible to deliver it sufficiently out of the wound to enable me to put a trocar in and decompress it. There was too much distention to put clamps on, so I walled off the loop and put a trocar in. As it deflated I pulled it up, and there was no spilling. I then put a tube in the enlarged trocar wound and closed the bowel with purse strings. It seemed at the time that I was probably in the transverse colon, although I could not be sure of it.

Since I have seen the postmortem I perhaps should not make further comment until later.

DR. MALLORY: I should like to ask Dr. Daland if he has any information now that will help toward establishing the permanent diagnosis?

DR. DALAND: No.

DR. FULLER ALBRIGHT: We seldom see a patient like this in the Medical wards. He was in the ward when I was visiting. I saw him the morning after he arrived. The surgeons let him come up to us and, by the way, we did not keep him for two days before again getting a surgical opinion. The story as I got it was absolutely of one week's duration. This story of nine months' duration was probably unrelated to the acute symptoms. He did have something that required going to bed, possibly a cardiac thing. He had no gastro-intestinal symptoms until one week before he entered. Then he had a very sudden onset of pain when he was being discharged from the infirmary of the home back to his own place. When I examined him, his abdomen was very distended. There was tenderness everywhere. I thought it was more marked in the right lower quadrant. I thought in view of the short history that a ruptured appendix was the most likely diagnosis. I thought the reason he did not show more spasm and a higher white cell count was that he was an old man. Appendicitis is constantly being missed in old people because of their lack of reaction.

DR. MALLORY: Are there any other comments?

DR. DANIEL F. JONES: It might be added to this that appendicitis in old people is frequently a cause of intestinal obstruction and is not recognized. It is recognized as obstruction but not as appendicitis.

FURTHER HISTORY

His postoperative course was very stormy. His temperature was considerably elevated. On the fourth day he had a chill, following which the temperature rose to 104°. His abdomen remained somewhat distended. There was profuse drainage from the colostomy. He developed cellulitis in the abdominal wound. The urinary output was very small. He rapidly failed and died nine days after operation.

FURTHER DISCUSSION

DR. MALLORY: Dr. Hayden, will you give us the rest of the course?

DR. HAYDEN: I think if I use the blackboard I can make the situation more clear.

It developed at autopsy that I had put the tube in the cecum, not in the transverse colon. I made the first incision at this point and there was no evidence of large intestine. The second was made at a corresponding point on the left. At autopsy there was an obstruction up under the liver. Then, as far as I could figure it out, the situation was like that which occurs in a distended rubber tube that is bent on itself, forming an obstruction. Of course at autopsy there was no distention because the tube had deflated the gut. As far as we could tell there

was a sharp angulation near the hepatic flexure. The reason it was angulated Dr. Mallory will explain. I was a little surprised that with the amount of the obstruction in the large gut there was no distention of the small intestine. He must have had a very competent ileocecal valve.

The tube pulled out accidentally two days after operation, according to the postoperative notes. The patient became irrational and we had to put side boards on the bed. He did have an origin of sepsis in the premature wrenching out of the tube from the bowel.

Clinical Diagnoses

Acute intestinal obstruction.
Peritonitis, general.

Anatomic Diagnoses

Chronic cholecystitis with abscess of the gall bladder bed.
Cholelithiasis.
Obstruction of the colon by adhesions at the hepatic flexure.
Operative wounds; exploratory laparotomy incision, right lower quadrant; cecostomy, left lower quadrant.
General peritonitis, acute.
Diverticula of duodenum, colon, bladder.
Arteriosclerosis.

Pathologic Discussion

Dr. Mallory: As far as we could make out when the autopsy was over, this man's primary disease was cholecystitis. He had a very small gall bladder constricted down tightly about a single stone, and an abscess had formed between the gall bladder and the liver, that is the gall bladder had been dissected completely free from its bed by an abscess containing 30 or 40 cubic centimeters of pus. The entire right upper quadrant was filled with dense adhesions and the transverse colon at the hepatic flexure was firmly adherent to the gall bladder and sharply kinked. The passage of the cecum from the right lower quadrant over to the left, I think, had increased the kinking enough to give a definite obstruction.

There were numerous diverticula in his large intestine, but they were all perfectly uninflamed. His pelvis was likewise free. Subsequent to the breaking down of the cecostomy wound a general peritonitis had developed and was the immediate cause of death.

Incidental findings were a rupture of the lower end of the common duct into a duodenal diverticulum with a side-tracking of the papilla of Vater and multiple diverticula of the bladder.

A Surgeon: Was it an extremely mobile cecum? Was it congenital?

Dr. Mallory: It was a very mobile one; readily moved from one side to the other. There is no reason to suppose it was congenital.

There is at least one close analogy to the other case, that regardless of which side one goes in on one is very apt to find trouble on the other side. From an incision on the right it was impossible to get into the cecum and relieve the obstruction, whereas going in on the left it was impossible even to find the point of obstruction, still less to do anything about it.

A Physician: Did the x-rays furnish anything?

Dr. Mallory: I forgot to ask Dr. Holmes. Will you interpret them now, Dr. Holmes?

Dr. George W. Holmes: I presume this film was taken with the patient sitting. There is a dark shadow here that might easily be mistaken for air, due to the rib above air filled lung. This is the distended bowel. This film was taken to demonstrate the presence or absence of free air in the abdominal cavity. I think we can say that there was no free air in the abdominal cavity.

When we try to interpret the appearance seen in the bowel we can only say that the bowel is dilated and distended with gas.

We could probably do more with these cases than we are doing at present. These patients should be fluoroscoped and films taken on the side as well as in the anteroposterior position.

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ONE HUNDRED AND TWENTIETH ANNUAL REPORT OF THE MASSACHUSETTS GENERAL HOSPITAL

THE current report of the Massachusetts General Hospital is significant because it contains the final report of the retiring Director, Doctor Frederic A. Washburn. This account of his stewardship covers the main events of the twenty-six years during which he has been the chief executive officer for the Trustees. This period has been an eventful one. Not only has the hospital plant been enlarged by the addition of the Phillips House and the Baker Memorial, but the hospital's relation to the community has undergone a material change. For many years before 1908, the year in which Doctor Washburn became Resident Physician, the hospital had been an institution devoted primarily to the care of the indigent sick. Gradually and almost imperceptibly its function has changed; it is now an institution for teaching, for research, for the trial of new methods of treatment, and for the carrying out of the more complicated treatments, both medical and surgical. The simpler operations are now done in a satisfactory way in many smaller hospitals throughout New England. This development is illustrated by the fact that in 1913, 57.8 per cent of the total number of operations were concerned with the appendix and various types of hernia, while in 1933 such operations numbered but 13.3 per cent of the total.

The report contains a summary of investigative work now being carried on; this includes many researches in different fields of medicine and surgery.

The depression has of course had its effects upon the hospital finances, but service to patients has not been curtailed. On the contrary, average daily visits to the out-patient department have increased from 886 in 1929 to 1052 in 1933. Pay days have decreased in percentage from 18 in 1929 to 14 in 1933, part pay days from 39 to 33, while free days have increased from 43 to 53.

This decrease in income from patients could best be met, Doctor Washburn believes, by the establishment of a group hospitalization plan of insurance.

Doctor Washburn may indeed look back with satisfaction upon the period included in his term as administrator. We may confidently expect that under Doctor Bigelow, his successor, the hospital's rate of progress will be sustained. There is an impetus behind the Massachusetts General Hospital which, increasing with the years of activity of that institution, will insure that it continues to "carry on".

WHAT OF THE 1934 LEGISLATURE?

WHILE the medical profession pays little attention to the purely political aspects of the accomplishments or omissions of the General Court, and physicians as a class are largely indifferent to much of the routine of legislation, the attitude of our lawmakers toward public health excites definite interest.

Of the thirty-four bills considered by the Committee on Public Health a few were freak productions, several were of no great importance, but two were constructive; for example, the vaccination bill founded on those presented by Dr. S. B. Woodward for many consecutive years, and that by the Board of Registration in Medicine.

The vaccination bill was opposed, as has been customary, by a bill to do away with the important provisions of the present law, and that of the Board of Registration by a bill designed to prevent the registration of diplomates of the National Board.

A bill before the Joint Committee of the Judiciary, introduced by Senator Miles, was of

especial interest because it was designed to relieve hospitals and doctors of the burden of caring for non-paying victims of automobile accidents, and for the direct payment to doctors of charges for treating industrial cases.

None of these bills received legislative approval. The policy of the Committee on Legislation is to continue efforts for improving vaccination laws and advancing the standards of medical education.

The bill by Senator Miles was a commendable effort to meet a definite need. Dr. Miles labored valiantly in upholding the work of the Committee on Legislation and it is expected that renewed efforts will be made in a redraft of the bill submitted by him to correct the present unfair conditions.

So far as the medical profession is concerned in legislation, there has developed an understanding of the lack of sympathy on the part of a large proportion of the members of the General Court with the purposes of the profession. It is probable that this attitude is due to a lack of appreciation of the ambitions of physicians to provide better service for the people, rather than because of unreasoning opposition to organized medicine. The remedy is obvious and the responsibility rests with doctors individually and collectively.

One of our leading Boston dailies, in the issue of July 2, published a scathing criticism of the 1934 session of the Legislature.

If this body is not representative of the average intelligence and loyalty to the interests of the Commonwealth, the people are to blame in the first instance in the selection of their representatives, and, secondly, in keeping too much aloof from those elected to act for them at the State House.

We urge doctors to lead the way in an educational campaign especially directed to enlightening the members of the General Court.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

ROBEY, WILLIAM H. M.D. Harvard University Medical School 1895. Clinical Professor of Medicine Emeritus, Harvard University. Consultant Physician to Boston City Hospital, Norwood Hospital, Milton Hospital, and Marlborough Hospital. His subject is "President's Address." Page 1. Address: 202 Commonwealth Avenue, Boston, Massachusetts.

JOSLIN, ELLIOTT P. B.A., M.A., M.D. Harvard University Medical School 1895. Medical Director, George F. Baker Clinic, New England Deaconess Hospital. His subject is "The Menace of Diabetic Gangrene." Page 16. Address: 81 Bay State Road, Boston, Massachusetts.

KEEFER, CHESTER S. B.S., M.D. Johns Hopkins University School of Medicine 1922. Assistant Professor of Medicine, Harvard Medical School. Associate, Thorndike Memorial Laboratory, Boston City Hospital. His subject is "Liver Abscess: A Review of Eighty-Five Cases." Page 21. Address: Thorndike Memorial Laboratory, Boston City Hospital.

DUNCAN, CHRISTOPHER J. A.B., M.D. Tufts College Medical School 1928. Assistant Surgeon to Out-Patients, Free Hospital for Women. Junior Visiting Surgeon for Gynecology and Obstetrics, Boston City Hospital. Assistant Obstetrician, Massachusetts General Hospital. Junior Visiting Obstetrician, Evangeline Booth Hospital, and St. Elizabeth's Hospital. Assistant in Gynecology, Harvard Medical School. Assistant in Obstetrics, Tufts Medical School. His subject is "Endometrioma of Bartholin's Gland." Page 24. Address: 198 Commonwealth Avenue, Boston, Massachusetts.

LANGMUIR, ALEXANDER D. A.B. Harvard University 1931. Class of 1935 Cornell University Medical School, New York City. Address: Cornell University Medical School, New York City. Associated with him are

WILLIAMS, SEIRIOL L. S.B., M.D. Harvard University Medical School 1933. House Officer, Montreal General Hospital, Montreal. Address: Montreal General Hospital, Montreal. And

POPE, ALTON S. A.B., M.D. Tufts College Medical School 1924. D.P.H. Harvard School of Public Health 1925. Assistant Professor in Preventive Medicine, College of Physicians and Surgeons, Columbia University. Director, Division of Communicable Diseases, Chicago Health Department. Director, Division of Tuberculosis, Massachusetts Department of Public Health, 1929 to date. Address: Department of Public Health, State House, Boston. Their subject is "Certain Factors Influencing the Mortality of Sanatorium Treated Cases of Pulmonary Tuberculosis." Page 26.

DAY, HILBERT F. Ph.B., M.D. Harvard University Medical School 1905. F.A.C.S. Clinical Professor of Surgery, Tufts College Medical School. Faculty Instructor in Surgery, Harvard Medical School. Surgeon-in-Chief, Boston Dispensary. Senior Visiting Surgeon, Cambridge Hospital. Consulting Surgeon, State Prison Colony Hospital, Norfolk. Surgeon, Masonic Hospital, Shrewsbury, Massachusetts. Consulting Surgeon, Cruft Hospital. His subject is "Uterine Bleeding From a Needle in the Uterine Cervix." Page 29. Address: 412 Beacon Street, Boston, Massachusetts.

COTTON, FREDERIC JAY, M.D. AND MORRISON, GORDON MACKAY, M.D. See page 817, issue of April 12 for records of authors. Their subject is "Fibula Resection in Certain Ankle Deformities." Page 31.

MASSACHUSETTS LEGISLATIVE NOTES

House of Representatives, June 15, 1934.

The committee on Ways and Means, to whom was referred the Bill further regulating the granite industry and providing for insurance of certain persons engaged therein (House, No. 1551), report that the same ought to pass with an amendment substituting therefor the accompanying bill (House, No. 1629).

For the Committee,
CHRISTIAN A. HERTER.

H. 1629—An Act further regulating the Granite Industry and providing for Insurance of Certain Persons engaged therein.

Whereas, The deferred operation of this act would tend to defeat its purpose, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public health.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Chapter one hundred and forty-nine of the General Laws is hereby amended by inserting after section six the following new section:

Section 6A. No person shall engage or continue, otherwise than solely as an employee, in the granite industry unless and until he shall have procured from the department a certificate of compliance with its rules and regulations relative to the installation and/or operation within his place or places of employment of suitable devices or other means for the prevention of silicosis. The department, upon application therefor and after such investigation as it deems proper, may issue a certificate of compliance to any such applicant, and may at any time for cause suspend or revoke a certificate so issued.

For the purposes of this section the granite industry shall include all establishments where granite or granitic rock is quarried, crushed, cut, turned, carved, lettered, surfaced, polished or otherwise machined or finished; and silicosis is defined to be that form of pneumoconiosis caused by the inhalation of siliceous dust other than that of asbestos.

SECTION 2. Chapter one hundred and fifty-two of the General Laws is hereby amended by inserting after section fifty-two, as appearing in the Tercentenary edition, the following new section:

Section 52A. Any insurance company subject to the provisions of section fifty-two shall file with, and in a form approved by, the commissioner of insurance its agreement:

(a) To insure, when ordered by the commissioner, the payment of the compensation provided for by this chapter for any rejected risk as hereinafter defined;

(b) To comply with rules and regulations made by the commissioner for the equitable distribution among all such insurance companies of rejected risks and such incurred losses thereon as are in excess of a percentage, fixed by the commissioner, of the premium of each such rejected risk.

A rejected risk shall mean any employer in the granite business who holds a certificate of compliance required by section six A of chapter one hundred and forty-nine and, having applied to three insurance companies therefor, has been refused insurance for the payment of compensation provided for by this chapter.

Failure by any such company to file such agreement within fifteen days after the effective date of this section or before transacting in this commonwealth workmen's compensation insurance, or failure by it to comply with such agreement or any such rule or regulation, shall be cause for the refusal, suspension or revocation by the commissioner of its right to transact said business in this commonwealth.

House of Representatives, June 15, 1934.

The committee on Ways and Means, to whom was referred the Bill providing for the insuring of the granite and foundry industries under the Workmen's Compensation Act and providing compensation for personal injuries from silicosis (House, No. 1583), report that the same ought to pass with an amendment substituting therefor the accompanying resolve (House, No. 1630).

For the Committee,
CHRISTIAN A. HERTER.

H. 1630 — Resolve authorizing and directing the Commission on Interstate Compacts affecting Labor and Industry to initiate Certain Negotiations with Like Commissions of Other States with Respect to the Granite Industry.

Resolved, That the commission on interstate compacts affecting labor and industry, established under chapter forty-four of the resolves of nineteen hundred and thirty-three, is hereby authorized and directed to initiate negotiations with like commissions of such other states as permit workers in the granite industry therein to carry on their hazard occupation under safeguards other than those required in this commonwealth, with a view to the preparation of an interstate compact whereby such differences in safeguards or conditions of employment may be made approximately uniform.

MISCELLANY

A FEW HIGHLIGHTS OF 1934

Within twelve months of latest tabulation, the American Red Cross responded to the relief needs resulting from 72 disasters. These occurred in widely scattered localities, and ranged from fires in Ellsworth and Auburn, Maine, to floods in Washington and Idaho and tornadoes in many states.

In recognition of the universal dependence on the Red Cross in time of disaster, this year a widespread disaster-preparedness campaign was conducted by Disaster Service. A number of one-day institutes were held for the schooling of Chapter officers and workers, public officials and civic leaders, in the meeting of disaster emergencies.

This year sees the completion of two decades of Red Cross Life Saving. It was in February, 1914, that the Red Cross life saving corps was first established.

In the twenty years since, more than half a million life saving certificates have been issued, more than 265,000 of these in the last four years.

First Aid, companion service antedating Life Saving, also has given courses to more than half a million. One of its most spectacular recent accomplishments was the emergency training of more than 70,000 CWA workers by an estimated 7,000 authorized volunteer instructors working with the facilities and under the sponsorship of Red Cross Chapters throughout the country.

Red Cross Chapters also coöperated with the CWA extensively in public health nursing and nutrition projects.—*Bulletin, American Red Cross.*

COMPARISON OF DISEASE INCIDENCE IN CONNECTICUT WITH 1933 AND SEVEN YEAR AVERAGE

MONTH ENDING JUNE 25, 1934

Diseases	1934 Week ending June 2	1934 Week ending June 9	1934 Week ending June 16	1934 Week ending June 23	Average cases reported for week corresponding to June 23 for past seven years	1933 Week ending June 3	1933 Week ending June 10	1933 Week ending June 17	1933 Week ending June 24
Cerebrospinal Men.	—	2	2	—	—	—	—	—	—
Chicken Pox	113	145	166	84	82	172	184	128	110
Conjunctivitis Inf.	—	1	1	—	—	—	—	—	—
Diphtheria	—	4	3	6	14	—	2	4	3
Dysentery Bacillary	—	—	1	—	—	—	—	—	1
Encephalitis Epid.	—	—	—	—	—	1	—	—	—
German Measles	6	13	9	6	15	5	7	—	—
Influenza	1	1	—	—	—	2	1	3	1
Malaria	1	—	—	—	—	—	—	—	—
Measles	183	260	210	178	142	289	191	123	134
Mumps	79	64	88	51	41	97	79	38	66
Paratyphoid Fever	—	—	—	1	—	1	—	—	—
Pneumonia (Broncho)	10	7	13	9	13	33	9	13	17
Pneumonia (Lobar)	13	15	6	10	16	24	11	18	13
Poliomyelitis	—	—	—	—	1	—	—	1	1
Scarlet Fever	41	31	41	17	40	54	62	39	56
Septic Sore Throat	4	5	—	4	2	1	2	4	1
Tetanus	—	—	—	—	—	1	—	—	1
Trachoma	—	—	—	—	—	—	—	—	1
Trichinosis	1	1	—	—	—	—	—	—	—
Tuberculosis (Pul.)	29	28	29	21	34	30	31	29	32
Tuberculosis (O. F.)	1	4	3	1	4	2	1	2	1
Typhoid Fever	—	—	1	—	1	3	1	—	2
Undulant Fever	—	2	3	—	—	—	—	—	—
Whooping Cough	28	65	75	52	45	86	49	45	53
Gonorrhea	42	28	82	31	38	23	48	75	70
Syphilis	47	48	54	31	46	52	34	41	66

Remarks: No cases of Asiatic cholera, glanders, plague or yellow fever during the past seven years.

DR. SHATTUCK FOUND GUILTY

On charge of prescribing drugs not in good faith, and not in the course of his professional practice, Dr. Ray Hammond Shattuck of Dorchester, Massachusetts, was found guilty in the Dorchester District Court, June 28, 1934, on five counts, and a fine of fifty dollars on each count was imposed. An appeal from this ruling of the court was taken by William R. Scharton, attorney for Dr. Shattuck.

Since this case is before the courts, comments are not in order.

THE ETIOLOGY OF INFANTILE PARALYSIS

The Associated Press reports to the *New York Times* that swimming pools are alleged causes of infantile paralysis based on the occurrence of the disease following the use of swimming pools.

The total number of cases reported in the past month amounts to 401. The use of swimming pools is not stated to have been a common factor in all of the cases, however.

THE AWARD OF A MEDAL TO DR. MOSHER

At the annual meeting of the American Laryngological Society held in Cleveland, the Gold Medal of the society was awarded to Harris P. Mosher of Boston.

BOSTON MEDICAL LIBRARY

The Library has recently received from good friends a number of outstanding items for its historical museum. From Dr. H. T. Baldwin, an infants' feeder of lustre glass from Pompeii. From the Misses Edith S. and Frances Fisher, diplomas and commissions of Dr. Benjamin Vreeland who was a member of the Arctic expedition of Dr. Kane. His doctor's diploma of 1848 is signed by all of the members of the Faculty including Willard Parker and Joseph M. Smith. His certificate of appointment as Surgeon to the New York Hospital in 1850 is signed by all of the consulting and attending surgeons, including Valentine Mott and Alfred C. Post. His commission as Surgeon in the U. S. Navy, dated 26 April, 1861 is signed by Abraham Lincoln. Two log books for 1850-1853 of Dr. Vreeland were presented to the Library by the Misses Fisher in 1925. From Mrs. J. W. Courtney, two early pharmacy jars. From Mrs. Hattie Copp, a silver loving cup presented to Dr. Owen Copp, June 9, 1911, in recognition of his distinguished services to the insane of Massachusetts. From Miss Martha Taylor, two pictures of medical scenes, painted on copper, probably in Germany.

AID FOR LOCAL HEALTH SERVICES

Need for increased aid by the Federal government in the development and maintenance of local health services was recently pointed out in a report by Dr. E. L. Bishop, State Health Commissioner, Nashville, Tenn., as chairman of the Committee on Federal Relations of the State and Provincial Health Officers, made public in the June issue of the *Journal of the American Public Health Association.*

The report urges the conservation of vital resources of the country through the protection of human life and health as a national economic necessity, by adequate legislation enabling the U. S. Public Health Service to help state departments of health in their local work.

"Many communities," states the report, "especially in the rural areas of the country, do not now possess resources sufficient to the support of necessary health services without aid from other sources. Opportunities for life and health of all the people of the United States should be equalized, and it should be made possible to prevent the interstate spread of disease in the most effective manner."

Permanent full-time local health units are advocated as constituting the most economical and effective method, and it is proposed to ask Congress to assist these projects by means of an appropriation of $2,000,000 for the first year, and increases at the rate of $500,000 annually to a maximum of $5,000,000 for the seventh year, continuing at this rate indefinitely. "Authority," states the report, "should be given to the Surgeon General to detail officers and other personnel of the U. S. Public Health Service to the promotion of this work with state health departments, under plans prepared in view of varying local needs. Allotments of funds should not exceed half of the total budget in the beginning, and within five years the county and state should assume not less than three-fourths the total cost."

This report, prepared by the Committee on Federal Relations of the State and Provincial Health Officers, has been endorsed by a similar committee of the American Public Health Association consisting of the following:

Committee on Health in the National Recovery: Haven Emerson, M.D., Eugene L. Bishop, M.D., Louis I. Dublin, Ph.D., John A. Ferrell, M.D., and Thomas Parran, Jr., M.D.—*Bulletin, American Public Health Association.*

THE APPOINTMENT OF DR. JOSEPH E. BARRETT

Under the nomination by Governor Ely and confirmation of the Council with suspension of the rules, Dr. Joseph Eagle Barrett of Taunton becomes assistant commissioner of Mental Diseases for Massachusetts. He will occupy the office held by Dr. Overholser before the latter was advanced to the position of Commissioner.

Dr. Barrett was born in Brookland, Arkansas, in 1890, and graduated in medicine from the University of Tennessee College of Medicine in 1922. He has served as assistant superintendent at the Taunton State Hospital, and in the office of the Commissioner of Mental Diseases at the State House.

He served in the navy during the World War as a pharmacist. He joined the Massachusetts Medical

Society and the American Medical Association in 1929. He is a member of the Society of Mental Hygiene, the New England and Massachusetts Psychiatric Societies, the American Psychiatric Association, and the Taunton Doctors' Club.

Dr. Barrett's appointment was recommended by Dr. Overholser, and thereby assures a strong administration of the Department.

STAFF APPOINTMENTS AT THE BOSTON DISPENSARY

At a meeting of the Board of Managers of the Boston Dispensary, June 27, the following appointments to the staff were made:

Medical Department, Dr. Charles H. Lawrence; assistant physicians, Paul Hoefer and Jacob Schloss; district physicians, Melvin Goodman, Paul H. Noth, Charles N. Lewis, John C. Montgomery, J. Lee Robinson, Jr., Edith O. Robinson; pediatrics department, Dr. Charles H. Lawrence, consultant; junior assistant physicians, Geraldine W. Sawyer, Jacob Wallace; genito-urinary department, junior assistant surgeon, Leo J. Lynch; nerve and mental diseases department, junior assistant physician, Arthur H. Ward.

A report of the home medical service was to the effect that in 1933 this work was almost five times greater than in 1925, and that the evening pay clinics for working people are growing.

CORRESPONDENCE

"A MATTER OF LAW"

June 25, 1934.

Editor, The *New England Journal of Medicine.*

In your issue of June 21, 1934, appears a letter signed by J. H. Means, M.D., and captioned by you "Shall We Wait for the Public to Act?"

Well, after all, why not? Perhaps if we leave this issue to the public, it may not act at all, but if it does, we may be sure, that we will not be burdened by any such psychopathic and self-contradictory proposals as those contained in section (c) of the report of the American College of Surgeons published by you in the same issue. If the signatories of this report, were not, in my opinion, intellectually anesthetized by ideas of grandeur, they would realize that as a matter of law, the fruition of this report would automatically sound the death-knell of the "closed staff."

Yours truly,

JOHN J. HURLEY, M.D.

466 Commonwealth Avenue, Boston, Mass.

RECENT DEATH

HUTCHINSON — CHARLES WILLIAM HUTCHINSON, M.D., of Concord, Massachusetts, died at the Baker Memorial Hospital, Boston, June 26, 1934, after a comparatively long illness.

He was born in Framingham Center, Massachusetts, in 1885, the son of the late Rev. Franklin Hutchinson and Mrs. Margaret (Farmer) Hutchinson; was educated in the Framingham schools and Harvard College, graduating with the A.B. and A.M. degrees; and taught the classics in Chicago, Providence and Middlesex School in Concord for several years, later taking up the study of medicine and graduating from the Harvard Medical School in 1917. He served an interneship at the Massachusetts General Hospital, and, on completion of his work in the hospital, engaged in general practice in Concord. He had medical oversight of pupils in the Middlesex School, the Concord Academy and the public schools in Concord.

Dr. Hutchinson joined the Massachusetts Medical Society in 1919 and was a Fellow of the American Medical Association. He held membership in the Corinthian Masonic Lodge, the Rotary Club and the historic Social Circle of Concord. He is survived by his widow, Mrs. Ethel Hutchinson, a daughter, Penelope Hutchinson, his mother living in Larchmont, New York, a brother, and five sisters.

SOCIETY MEETINGS, CONGRESSES AND CONFERENCES

July 24-31—The IVth International Congress of Radiology will be held in Zurich under the presidency of Professor H. R. Schnis. General Secretary Dr. H. E. Walther, Gloriastrasse 14, Zurich.

August 18 - September 30—Medical Study Trip to Hungary. See page 975, issue of May 10.

September 3-6—American Public Health Association, at Pasadena, California. Dr. J. D. Dunshee, Chairman, Local Committee on Arrangements.

September 4, 5, 6—International Union Against Tuberculosis. For information address the National Tuberculosis Association, 450 Seventh Avenue, New York City.

September 10, 11, 12, and 13—American Congress on Physical Therapy will meet in Philadelphia at the Bellevue Stratford. For details write American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

September 10-15—First International Congress of Electro-Radio-Biology will be held in the Doges Palace at Venice. For details address the General Secretary of the Congress, Dr. Giocondo Protti, S. Gregorio 173, Venice (Italy).

September 27 and 28—International Association for Preventive Pediatrics will be held at Lyons. For details address the Secretary of the I. A. P. P., 15 rue Lévrier, Geneva (Switzerland).

September 28-29—New England Surgical Society will meet at Burlington, Vermont. For details address the Secretary, Dr. John M. Birnie, 14 Chestnut Street, Springfield, Mass.

October 22 - November 2—1934 Graduate Fortnight of the New York Academy of Medicine. See page 1240, issue of June 7.

October 31 - November 2—Massachusetts State Nurses' Association, Hotel Statler, Boston. For information write Miss Helene G. Lee, R.N., 420 Boylston Street, Boston.

April 29 - May 3, 1935—The American College of Physicians will meet in Philadelphia. For information address Mr. E. R. Loveland, Executive Secretary, 133-135 South 36th Street, Philadelphia, Pa.

June, 1935—Medical Library Association will meet in Rochester, N. Y. For details address the Secretary: Miss Frances N. A. Whitman, Librarian, Harvard University Schools of Medicine and Public Health, Boston, Mass.

BOOKS RECEIVED FOR REVIEW

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey. Fourth Edition. 287 pp. Baltimore: William Wood and Company. $6.50.

La Résection Endoscopique de la Prostate. Par le Dr. Ed. Papin. 66 pp. Paris: Gauthier-Villars, 1934. 30 fr.

Bergey's Manual of Determinative Bacteriology. A key for the identification of organisms of the class schizomycetes. By David H. Bergey et al. Fourth Edition. 664 pp. Baltimore: The Williams & Wilkins Company. $6.00.

Practical Methods in Biochemistry. By Frederick C. Koch. 282 pp. Baltimore: William Wood & Company. $2.25.

The Medicolegal Necropsy. A symposium held at the Twelfth Annual Convention of the American Society of Clinical Pathologists at Milwaukee, Wisconsin, June 9, 1933. Edited for the society by Thomas B. Magath. 167 pp. Baltimore: The Williams and Wilkins Company, 1934. $2.50.

Handbook of Therapeutics. By David Campbell. Second Edition. 444 pp. Baltimore: William Wood & Company, 1934. $4.75.

The Chances of Morbid Inheritance. Edited by C. P. Blacker. 449 pp. Baltimore: William Wood & Company, 1934. $5.00.

Features in the Architecture of Physiological Function. By Joseph Barcroft. 386 pp. New York: The Macmillan Company, Cambridge, England: At the University Press. $5.50.

Child Guidance Clinics. A quarter century of development. By George S. Stevenson, and Geddes Smith. 186 pp. New York: The Commonwealth Fund. $1.50.

Radiologic Exploration of the Mucosa of the Gastro-intestinal Tract. By the Cole Collaborators. 336 pp. Saint Paul and Minneapolis: The Bruce Publishing Company. $7.50, cloth; $10.00, ¾ Morocco.

BOOK REVIEWS

Modern Clinical Psychiatry. By Arthur P. Noyes. 485 pp. Philadelphia: W. B. Saunders Company. $4.50.

This textbook is what the title suggests—a modern up-to-date textbook of particular value to clinical psychiatrists and clinicians interested in psychiatry. It can be recommended for its judicial balance of the viewpoints of the various schools of psychiatrists.

Particularly to be commended is the clear detail in which treatment recommended is described. Another feature of value is the bibliography appended to each chapter wherefrom the reader can find extended subject matter for the topics discussed. A medical student or clinician interested in psychiatry—and to-day no alert clinician can afford not to be interested in psychiatry—can search far and fail to find a textbook better suited to his needs than this textbook by Dr. Noyes.

The Hospital Manual of Operation. By Warren P. Morrill. 305 pp. New York: Lakeside Publishing Company. $3.00.

The Hospital Manual of Operation by Dr. Warren P. Morrill is a summary of elementary principles and practices in hospital administration. Dr. Morrill is to be commended for the clear manner in which he has written of the various technical phases of hospital management. The Manual contains much valuable information, but, unfortunately, it is lacking in a critical analysis of the methods described. However, the reader who wishes more detailed information may consult the excellent bibliography to be found at the end of each subject presented. All those interested in hospital administration should find the book useful. The superintendent of the small hospital, where the administrative problems are not complex, will find it a valuable reference book.

Features in the Architecture of Physiological Function. By Joseph Barcroft. 358 pp. New York: The Macmillan Company, England: The University Press. $5.50.

In view of the embarrassing volume of current literature, books of this type are of the utmost value. A master in physiology has here appraised the significance of recent work in a dozen fields. In most of these his own researches have been important. The material is presented with great clearness, a colloquial simplicity, and many touches of a winning personality. The chapters afford uncommonly stimulating reading, not only for physicians and biologists but for men of quite other scientific interests, for example, engineers. Consider the calculation of the horse-power required to propel a whale at various speeds.

The tone of the exposition is modest and tentative rather than dogmatic. Established data are arrayed and a sharp distinction is made between these and their probable or possible implications. But we are privileged to learn something of the brilliant mind of the writer as he ventures now and then upon speculative excursions. The return to solid factual foundation follows quickly, but one is left aroused and alert for future developments.

New and Nonofficial Remedies, 1934, containing descriptions of the articles which stood accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1934. Pp. 510. Chicago: American Medical Association. $1.50.

New and Nonofficial Remedies, 1934, has the same pleasing format and helpful mechanism that has characterized it in past years. The enrichment of the indexing started a few years ago is continued and its value even increased by some desirable simplification of cross references.

The Council has made the usual careful revision of the book. The general article Lactic Acid-Producing Organisms and Preparations has been practically rewritten. The chapter on Arsenic preparations has undergone some revision, especially in the statement concerning Neoarsphenamine. The descriptions of Chiniofon and Vioform have been revised in the light of recent developments in the treatment

of amebiasis. The article on Ethylhydrocupreine has been revised to delete references to Optochin Base, which has been omitted; Optochin Hydrochloride has been retained, being recommended only for external use. The description of Typhoid Vaccine has been revised to give the dosage of the combination of typhoid and paratyphoid organisms and to mention the use of typhoid vaccine in nonspecific protein therapy. A number of revisions of the Council's Rules have been made, particularly with reference to the names of products, which is one of the most frequent and troublesome of the problems with which the Council has to deal. Comparison with last year's volume will show that revisions of more or less importance occur in many other chapters.

Among the preparations newly included in this volume are: Aminophylline, a double salt or mixture of theophylline and ethylenediamine, with the advantage of greater solubility over other theophylline preparations; the new alum precipitated diphtheria toxoid; Neo-Iopax, a new medium for intravenous urography; Benzedrine, an ephedrine substitute; serums containing type II pneumococcus antibodies, which the Council has recently recognized as worthy of clinical trial in view of improved preparations and technique; Autolyzed Liver Concentrate and Extralin, two new liver preparations for use in the treatment of pernicious anemia; Metycaine, a new local anesthetic; and Sodium Morrhuate, a salt of the fatty acids of cod liver oil, proposed for use as a sclerosing agent.

Chronic Nasal Sinusitis and Its Relation to General Medicine. By Patrick Watson-Williams. Second Edition. 262 pp. Bristol, England: John Wright & Sons, Ltd. 15/-net.

A second and amplified edition of a monograph based on the author's Semon Lecture at the University of London, dealing with the relationship of secondary infection in various parts of the body to primary sinus infection. The original plan of the book has been adhered to although the chapters have been extensively rewritten and new ones added. The monograph is altogether different from the average run of textbooks on sinus pathology and surgery and should prove most instructive and helpful to specialists and general practitioners.

Rhythm of Life. A guide to sexual harmony for women. By Sofie Lazarsfeld. 329 pp. New York: Greenberg. $5.00.

This book, ably translated from the German by Karsten and E. Pelham Stapelfeldt, is a scholarly and scientific discussion of the sexual relations between man and woman. Perhaps we should say between woman and man, for the writer, being a woman herself and admitting that neither sex can fully appreciate the sexual psychology of the other, dwells chiefly on the feminine aspects of the question. Her reaction toward man is influenced by her sense of grievance aroused by the centuries-old assumption of superiority by man and she believes that man's attitude is a defensive reaction; that he really has a feeling of sexual inferiority because of his natural limitations in the sexual relation.

The author is not a physician, but is a well-trained psychologist of the Alfred Adler school of thought. The practical foundation for the book is her experience as consultant in the "Consultation Bureau" of Vienna—an institution founded for the purpose of relieving some of the suffering caused by sexual maladjustments. In view of the increasing importance of the study of this phase of human life, this book of Madame Lazarsfeld's deserves careful consideration.

Surgical Clinics of North America. April, 1934. Volume 14—Number 2. New York Number. 520 pp. Philadelphia and London: W. B. Saunders Company.

This issue opens with two lucid, practical clinics in the field of urology. In the first Keyes gives detailed instructions in the management of prostatic retention of urine, while in the second Beer ably summarizes the present knowledge concerning urinary tract lithiasis.

Ludwig's angina is graphically described by Ramsdell with the aid of excellent illustrations. Uniformly satisfactory results have been obtained by excision of the submaxillary gland.

A group of clinics illustrates the divergent views in the treatment of peptic ulcer and allied conditions. Cole presents a case to emphasize the fact that not all gastric lesions near the pylorus are malignant. Woolsey reports a series of cases to prove the advantages of gastro-enterostomy for duodenal ulcer and states that jejunal ulcer should not occur in over two per cent of cases. On the other hand Hinton considers that the jejunal ulcers are much more frequent being 16.4 per cent in his group. He believes a thorough medical treatment should be tried first even in gastric ulcers, and that if surgery is required, a gastric resection should be done. Donovan also discusses the surgical treatment of peptic ulcers and stresses the value of excision of duodenal ulcers as suggested by Judd.

The volume as a whole consists of thirty-four clinics on well-chosen subjects of practical interest.

The Clinical Management of Horseshoe Kidney. By Robert Gutierrez. 143 pp. New York: Paul B. Hoeber, Inc. $3.00.

In "The Clinical Management of Horseshoe Kidney," Gutierrez has given us an admirable monograph dealing with all phases of this condition. His conclusions are based upon observations of a series of twenty-five cases.

Gutierrez's thesis is that horseshoe kidney is a congenital deformity which through faulty drainage not only renders the upper urinary tract liable to infections and stone formation, but which, even

without these complications, tends to produce a syndrome consisting of pain in the umbilical region, backache, gastro-intestinal disorders and chronic constipation.

This "horseshoe kidney" syndrome demands operative relief. The isthmus connecting the two kidneys should be divided, preferably by the retroperitoneal approach, in order that the separated organs may fall back into more normal positions. At the same time the ureters should be freed of abnormal constrictions, thereby improving renal drainage. Only after this procedure can a case of horseshoe kidney be considered cured.

The monograph is beautifully illustrated, and does credit to author and publishers alike.

Studies from The Rockefeller Institute for Medical Research. Reprints. Volume 87. 658 pp. New York: The Rockefeller Institute for Medical Research, 1933.

In this volume, giving a cross section of the work of the Rockefeller Institute, a wide range of subjects is covered. Rake reports further on his studies on meningococcus infection. A large number of chemical papers are presented. From the departments of the hospital are further papers bearing on pneumococcus infection and reports on methods of nitrogen determination in blood and urine.

International Clinics. Volume I. Forty-Fourth Series, 1934. Edited by Louis Hamman. 320 pp. Philadelphia: J. B. Lippincott Company.

In this issue we find a symposium devoted to the subject of lead poisoning with particular reference to its application in pediatrics. There are a number of other interesting articles including an excellent summary of progress in medicine. The whole volume is very readable and the standard continues high.

Gynealogy of Sex. Sex in its Myriad Forms, from the One-Celled Animal to the Human Being. By Curt Thesing. Translated from the German by Eden and Cedar Paul. 320 pp. New York: Emerson Books, Inc. $5.00.

Here is a book which attempts to harmonize those facts which make sex a biologic problem and those other facts dealing with human behavior and emotions which make sex a sociologic problem. The facts are all interesting — sufficiently so to ensure the reading of the book from cover to cover — but they have no necessary relationship. In other words, the biology of sex in the worms or molluscs can hardly be of great moment to the student of sex in human beings except as a necessary background. This the scientist already has. To the average man or woman the fact that among the lower animals there are many hermaphrodites is interesting perhaps, but practically unimportant. We can hardly expect human conduct to be greatly affected by the method of copulation of the Emu.

Having made these criticisms we should add that in our opinion there cannot be too much knowledge of sex either from a biologic or a sociologic point of view. If this book suggests the need for such knowledge and stimulates others to read or observe along these lines it has not failed in its purpose.

Allergy in General Practice. By Samuel M. Feinberg. 339 pp. Philadelphia: Lea & Febiger. $4.50.

Allergy is defined as a form of hypersensitivity in man in which there is a tendency to hereditary transmission, or an inherited tendency with acquired sensitiveness. Whether an allergic constitution is inherited or acquired, it does not result in clinical allergy unless sensitiveness is present. Allergy is regarded as "one disease in which the various clinical conditions such as asthma, hay fever, eczema, or urticaria, etc., are merely symptoms or manifestations". Allergic response to any agent varies in the same individual from time to time, dependent upon disturbance of the homeostasis of the body. However, after a variable period a specific allergy becomes stabilized as a rule. The author differentiates allergy and anaphylaxis clearly. While both conditions indicate a form of hypersensitiveness following exposure to a sensitizing dose of some substance, usually protein in nature, "this exposure in allergy is by *natural acquisition*"; in anaphylaxis it is artificially produced. In other words, "allergic sensitivity results from natural exposure in susceptible individuals". About two per cent of the population of the United States are considered to be people who show allergic response. Allergy rarely appears after fifty years of age. The foods most frequently recognized as active agents producing allergic response are eggs and wheat; followed next in order by milk, peas, beans and cocoa.

Feinberg states that there are two "types of reactions responsible for allergic symptoms. One is a spasm of smooth or involuntary muscle and the other a vascular disturbance, probably an increased capillary permeability. In the muscle spasm type we recognize such examples as bronchial asthma, entrocolic and bladder irritability. In the vascular group we have such well-defined examples as hay fever or urticaria. There is no doubt that the two pathological conditions may co-exist under some circumstances".

This book on allergy follows a definite plan, so that any practitioner of medicine reading it will find correct methods to arrive at a diagnosis indicating allergy as a causative factor in a patient's disease (particularly asthma and hay fever, but also other syndromes which are of allergic origin). He will also find differential diagnoses; practical suggestions for history taking and the recording of findings; clear detailed outlines of treatment, as well as a comprehensive description of allergic phenomena. As a clinical volume this book deserves a place on

the shelves of the average doctor's library. It is a book which is compact, practical and useful; and is recommended highly.

Our Mysterious Life Glands and How They Affect Us. By William J. Robinson. 291 pp. New York: Eugenics Publishing Company, Inc. $2.00.

This book is described on its title page as "a popular treatise on our glands and their secretions," but it for some inexplicable reason includes "the vitamins".

The author, "editor, medical critic and guide," has perpetrated another horror in the form of a pseudoscientific analysis of many disorders inferentially dependent upon endocrine dysfunction. Its "popular" style, its appeal to sexuality, and its expression of the author's personal ideas of therapy relegate it to the class of pornography or charlatanism rather than a genuine attempt at the education of the laity.

The reviewer can see no excuse for such a book, but must admit that it is more restrained in its tone than many of its predecessors.

Manometric Methods as Applied to the Measurement of Cell Respiration and Other Processes. By Malcolm Dixon. 122 pp. New York: The Macmillan Company. $1.75.

The appeal of this book must be to a small group of workers but it is a model of its kind. It describes in detail several technical methods for the measurement of cellular respiration which have lately come into most fruitful use. The apparatus is adapted to the estimation of gaseous exchanges in tissue sections weighing 0.1 Gm. or in yeast and other cultures of like scale. The quantitation of oxygen consumption does not offer great difficulties but the determination of the true respiratory carbon dioxide and the quotient has called for rare ingenuity. The writer has made both theory and practice singularly clear. As a leading investigator in this field he treats it with authority and this manual will definitely promote further research.

Collected Papers of The Mayo Clinic and The Mayo Foundation. Edited by Maud H. Mellish-Wilson and Richard M. Hewitt. Volume XXV, 1933. Published May, 1934. 1230 pp. Philadelphia: W. B. Saunders Company. Cloth, $11.50 net.

During the twenty-five years that the Collected Papers of the Mayo Clinic have been published they have contributed much to the enlightenment of the profession concerning recent advances in medicine. In fact, this annual volume is in the nature of a textbook dealing with the new knowledge in therapy, diagnosis and clinical investigation. Since its inception in 1910, the responsibility for the editing of this yearly publication rested mainly upon the shoulders of Maud H. Mellish-Wilson, and the number for 1933 is the first to miss her guiding hand throughout its preparation for the medical public. Mrs. Wilson died on November 6, 1933, and that her work has been of inestimable value to the Staff of the Mayo Clinic in preparation of its reports is attested to by the tributes paid to her in the early pages of the present volume of papers.

In reviewing the pages of the current edition one finds many noteworthy contributions. Judd and Phillips report their experience with pyloroplasty in the treatment of duodenal ulcer and state that satisfactory results are obtained in ninety to ninety-five per cent of cases with an operative mortality of one per cent or less.

Although ulcerative colitis is considered to be an affliction due to infection by a diplostreptococcus, much emphasis is placed by Bargen upon the general systemic nature of the disease and the necessity for considering it as a chronic process akin to tuberculosis.

There is a very excellent study of prostatic resection by Bumpus which places this procedure upon a firm footing as a sound operative management in cases of prostatic obstruction. Several papers discuss the use of the ketogenic diet in the control of urinary sepsis.

At the Mayo Clinic the Elliott treatment for hronic pelvic inflammatory disease has met with success in selected cases and is reported by Counseller.

So long as the cause of essential hypertension is still unsolved and the cure for it apparently distant, one reads with interest about the cold test as throwing light on future hypertensives and thus enabling the patient to adjust his life early and avoid the stresses and strains which aggravate this disease. (Hines and Brown.)

Cystein has been used in the treatment of slow healing ulcers with good results by Brunsting and Simonsen, and the method is quite simple.

We again find a favorable report by Boothby on the use of glycin and ephedrin in the treatment of myasthenia gravis.

Desjardins gives a valuable classification of tumors on the basis of their radiosensitivity.

The reviewer has naturally selected the subjects of interest to himself, to the exclusion of many that would be more important to other readers. In this volume any person with clinical problems will find much of interest and practical usefulness.

One Hour of Medical History. By Benjamin Spector. Volume III. 181 pp. Boston: The Beacon Press, Inc.

This, the third volume on a series of pageants of medical history given by the students of the Tufts College Medical School, is of even greater interest than the previous publications. Dr. Spector has continued to expand the volumes so that they become of increasing use each year. The present book contains excellent illustrations, brief biographies of the individuals depicted, a pleasant introduction by Professor Sigerist of Johns Hopkins University, and a careful list of books shown at a bibliographical demonstration in the Boston Medical Library by the Director, Mr. James F. Ballard, in conjunction with the pageant. It is hoped that this series will be continued, for it forms an additional chapter of unique interest in the development of the history of medicine in this country.